

DUELLING WITH THE PAST

STUDIES IN THE EARLY MIDDLE AGES

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VOLUME 21

DUELLING WITH THE PAST
Medieval Authors and the Problem of the Christian Era,
c. 990–1135

by

Peter Verbist



BREPOLS

Verbist, Peter.

Duelling with the past : medieval authors and the problem of the Christian Era, c. 990–1135. – (Studies in the early Middle Ages ; v. 21)

1. Religious disputations – Europe – History – To 1500. 2. Jesus Christ – Chronology – Early works to 1800. 3. Literature and society – Europe – History – To 1500.

I. Title II. Series

809'.02-dc22

ISBN-13: 9782503520735

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D/2010/0095/48
ISBN: 978-2-503-52073-5

To my parents.

CONTENTS

Acknowledgements	ix
Introduction	1
Chapter 1. Heriger of Lobbes (d. 1007)	15
Chapter 2. Abbo of Fleury (d. 1004)	35
Chapter 3. Marianus Scottus (d. 1082)	85
Chapter 4. Gerland the Computist (d. after 1093?)	147
Chapter 5. Sigebert of Gembloux (d. 1112)	173
Chapter 6. Hezelo of Cluny (d. 1123)	239
Chapter 7. Anonymous of Limoges	245
Chapter 8. Heimo of Bamberg (d. 1139)	251
Conclusion	341
Bibliography	355

ACKNOWLEDGEMENTS

At the outset of this study it is appropriate to say some words of sincere thanks. In this case I do not mean a list of obligatory acknowledgements, but rather a sincere feeling of gratitude for the many helping hands who each made their own individual contribution over the past years.

First and foremost, my major dissertation advisor, Professor Jean Goossens, deserves my highest expression of thanks. His critical observations compelled me to provide more support for my weaker arguments. Secondly, I wish to thank Dr Marco Mostert (Utrecht). His sober analyses reduced my complex problems to manageable pieces of a puzzle. Our stimulating discussions in Utrecht, Leeds, Paris, and Paderborn consistently gave me the wherewithal to mold stubborn material into a logically ordered whole. The interesting discussions I had with Professor Georges Declercq (Brussels) also contributed added value to this dissertation.

I would also like to express my thanks to Prof. Faith Wallis (Montreal), without whom the study of Gerland the Computist would have produced much fewer results. I also gratefully acknowledge Prof. Robert Gary Babcock (Yale), Dr Richard Corradini (Vienna), Dr Nadja Germann (Baltimore), Prof. Hans Hauben (Leuven), Dr David Juste (Sydney), Dr Alfred Lohr (Freiburg), Dr Daniel McCarthy (Dublin), Prof. Dáibhí Ó Cróinín (Galway), Dr Barbara Obrist (Paris), Dr Masako Ohashi (Nagoya), Prof. Pierre Riché (Nanterre), Prof. Wesley Stevens (Winnipeg), Prof. Anna-Dorothea von den Brincken (Cologne), and Dr Michiel Verweij (Leuven/Brussels) for the many off-prints and helpful e-mails and letters. The results of this study could never have been achieved without the willing assistance of various archives and libraries in Berlin (Staatsbibliothek, Preussischer Kulturbesitz), Berne (Burgerbibliothek), Leyden (Universiteitsbibliotheek), London (British Library), Montpellier (Bibliothèque interuniversitaire), Munich

(Bayerische Staatsbibliothek), Paris (Bibliothèque nationale de France), and Vatican City (Biblioteca apostolica Vaticana).

Prof. Arno Borst (Konstanz) and the Arno-Borst-Stiftung deserve my special thanks for spontaneously providing me with a subsidy to cover the costs of translation. I am also grateful to my publisher, Brepols, for the alacrity with which they agreed to take on the publication of this study. I have not hesitated to dedicate this book to my parents because they themselves underestimate how great their part was in the realization of it. Finally I wish to thank my wife, Jacqueline. Without her this book would never have been written.

INTRODUCTION

Quid est ergo tempus?
Si nemo ex me quaerat scio,
si quaerenti explicare velim nescio.

Augustine of Hippo, *Confessiones*, 11:14

The Question

This book constitutes a study of the computistical corrections of eight medieval authors to the Christian era of Dionysius Exiguus (d. c. 540).¹ Two of these corrections are dated to around the year 1000 and were promulgated by Abbo of Fleury and Heriger of Lobbes. The remaining six corrections date to around the year 1100, the first important source of which is the world chronicle penned by Marianus Scottus. Encouraged by Marianus's theories, Sigebert of Gembloux devoted an extensive dialogue to this issue. In the meantime, Gerland the Computist had also presented and explained his dating of the year of Christ's Birth. In addition to the opinions of these three important authors, we shall also devote some attention to two shorter tracts, written by Hezelo of Cluny and an anonymous author from the abbey of St Martial at Limoges, respectively. In the final case study we turn our attention to the chronicle by Heimo of Bamberg, which occupies a unique position with respect to the other chronological corrections of the Christian era.

The selection of eight authors is relatively easy to justify, for no other corrections to the Dionysian era are known to us. From this fact there follow two almost contradictory consequences. On the one hand it is not impossible that even now

¹ On the Christian era and its importance, see below, the section on 'The Difficult Triumph of Dionysius's Christian Era'.

there are other corrections that remain buried in the many as yet unpublished medieval manuscripts. The poor dissemination of such texts is the rule rather than the exception, rendering it difficult to trace them in any systematic way. On the other hand, this book provides the first complete survey of these computistical corrections to Dionysius's Incarnation era.

The innovative nature of this study resides, however, not so much in the provision of an exhaustive accounting, but rather in the systematic analysis and problem-centred study of this source material. Each of the case studies is approached from a double perspective. The initial question probes the technical contents of the corrections. By how many years was the Dionysian era corrected, and what computistical arguments formed the basis for it? Did the author of a correction consider it an isolated fact or did he link it to a recalculation of the date of the Creation of the world? In the latter case we determined also consistently how a given author regarded the relationship between chronology and chronography. It is, for example, interesting to discover whether the computistical results took precedence over their chronographic equivalents. The results of these technical analyses will be studied as well from the comparative perspective in the Conclusion of this book.

To limit this study to an exclusively technical analysis of the various case studies would constitute a missed opportunity. A second emphatic intention of this book is to employ these analyses to penetrate the intellectual historical level of the question. In other words, we have studied not only exactly what these computistical corrections are comprised of, but also why these corrections were recorded. This second question opens up an entirely new field of study. Existing studies of the intellectual history of this period have after all not made any use whatsoever of this often unpublished source material. For this reason one might certainly not ignore the following questions: What value do these case studies have for the study of intellectual life in the period in question (c. 990–1135)? Do we detect in these computistical corrections indications for a nascent striving for intellectual autonomy? How are we to situate these authors with respect to the Golden Age of scholasticism (1150–1250)?

All eight authors have in common that they do not agree with the Dionysian era and have proposed an alternative themselves. These were met, however, with severe objections and difficulties, because medieval thinking was so thoroughly permeated by the idea of *auctoritas*. In other words, every statement had to be confirmed by an authoritative text. It was therefore very unusual for anyone to go against this *auctoritas*. In this context it is important to know that Dionysius's Christian era was championed by no less a figure than the Venerable Bede (d. 735). Consequently we will investigate in what ways a computistical correction could be formulated so as not to impinge upon the *auctoritas* of Bede. Moreover, the

eminent Church Fathers Jerome of Strido (d. 419/20) and Augustine of Hippo (d. 430) had made clear pronouncements concerning the date of Christ's Passion. According to some medieval authors these authoritative statements did not agree with historical reality. It is thus extremely interesting to determine how they wrestled with the issue of *auctoritas*.

These eight medieval authors challenged the past in two ways. They tried to re-arrange and retell the past by setting a new date for the year of Christ's Birth. At the same time they had to break with the reigning practice of accepting and passing on to subsequent generations authoritative statements and traditions without criticism. This book will demonstrate that in medieval chronology the question of Christ's year of Incarnation was a real one, and it will constitute an interesting case study from both a technical chronological perspective and an intellectual historical one.

Status Quaestionis

Chronology is generally recognized as the first form of logic in history. And yet one seldom runs the risk of encountering well-worn paths in the field of medieval chronology. There are after all more than nine thousand medieval manuscripts that consist at least in part of computistical contents.² These are sometimes brief tracts, commentaries, didactically underpinned rules of thumb (*argumenta*), all manner of tables and geometrical figures (*rotae*), calendars, and/or elaborate manuals. Some scholars have in the past noted the need for a synthesis of early medieval chronology in all of its many facets.³ The time is not yet right, however, for such an endeavour. That study would of necessity be preceded by a new survey of the manuscripts, critical editions, and individual thematic studies.

It is the aim of this book to make a significant scientific contribution in this latter category. Over fifty years ago (1949), Alfred Cordoliani published an article on the computistical corrections of Heriger of Lobbes and Abbo of Fleury, but his erroneous interpretation ultimately created much more confusion than clarity.⁴ As

² Wesley M. Stevens, *Cycles of Time and Scientific Learning in Medieval Europe*, Variorum Collected Studies Series, 482 (Aldershot, 1995), p. 46.

³ Alfred Cordoliani, 'Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon sur l'ère de l'Incarnation de Denys le Petit', *Revue d'histoire ecclésiastique*, 44 (1949), 463–87 (p. 463), and Otto Meyer, 'Weltchronistik und Computus im hochmittelalterlichen Bamberg', *Jahrbuch für fränkische Landesforschung*, 19 (1959), 241–61 (pp. 244–45).

⁴ Cordoliani, 'Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon'.

far as the record concerning Abbo is concerned, Cordoliani allowed himself to be misled by the deficient textual edition produced by Pierre Varin exactly a century earlier (1849).⁵ Ultimately an article by André Van de Vyver (1935) proved to be a better point of departure for an analysis of Abbo's chronological oeuvre.⁶ His analysis contains a number of important gaps, however. Following our own study of the manuscripts and having turned up a previously unknown computistical tract by Abbo himself, we found the missing link necessary to reveal fully the evolution of Abbo's theories. In this way we were able to bring an end to the reigning confusion concerning Abbo's computistical correction (2003 and 2004).⁷

Anna-Dorothea von den Brincken wrote two pioneering articles (1961 and 1982) on the three-volume chronicle by Marianus Scottus.⁸ The incomplete status of her analysis, however, has made it necessary to correct significant intrinsic deficiencies in this record, as well. We have therefore demonstrated that Marianus did indeed construct a coherent timeframe in his chronological theories (2002).⁹ For the chronological correction proposed by Gerland the Computist it initially appeared that we would be left to find our own way through the maze of manuscript versions of his *De computo*. Fortunately we were able to work from a preliminary draft edition of this work by Faith Wallis, in which the majority of the more than thirty manuscripts had already been collated. Wallis, however, decided not to

⁵ Pierre Varin, 'Lettre critique d'Abbon de Fleury sur les cycles dionysiaques', *Bulletin du comité historique des monuments écrits de l'histoire de France: histoire, science, lettres*, 1 (1849), 115–28.

⁶ André Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', *Revue bénédictine*, 47 (1935), 125–69 (pp. 150–58).

⁷ Peter Verbist, 'Abbo of Fleury and the Computational Accuracy of the Christian Era', in *Time and Eternity: The Medieval Discourse*, ed. by Gerhard Jaritz and Gerson Moreno-Riaño, International Medieval Research, 9 (Turnhout, 2003), pp. 63–80, and Verbist, 'Abbon de Fleury et l'ère chrétienne: un esprit critique vis-à-vis d'une tradition erronée', in *Abbon de Fleury: philosophie, sciences et comput autour de l'an mil*, ed. by Barbara Obrist, Oriens-Occidens: sciences, mathématiques et philosophie de l'antiquité à l'âge classique. Cahiers du Centre d'Histoire des Sciences et des Philosophies Arabes et Médiévales, 6 (Paris, 2004), pp. 61–93.

⁸ Anna-Dorothea von den Brincken, 'Marianus Scottus: Unter besonderer Berücksichtigung der nicht veröffentlichten Teile seiner Chronik', *Deutsches Archiv für Erforschung des Mittelalters*, 17 (1961), 191–231, and von den Brincken, 'Marianus Scottus als Universalhistoriker iuxta veritatem Evangelii', in *Die Iren und Europa im früheren Mittelalter*, ed. by Heinz Löwe, Veröffentlichungen des Europa-Zentrums Tübingen: Kulturwissenschaftliche Reihe, 1 (Stuttgart, 1982), pp. 970–1009.

⁹ Peter Verbist, 'Reconstructing the Past: The Chronicle of Marianus Scottus (d. 1082)', *Peritia*, 16 (2002), 284–334.

continue her project, but we're happy to announce that Alfred Lohr will soon provide us with an edition of Gerland's *De computo*.

The important historiographer Sigebert of Gembloux is also a member of this select group of eight chronologists. In his badly known *Liber decennalis* we encounter perhaps the epitome of all of these corrections. Credit goes to Joachim Wiesenbach for identifying this dialogue as the work of Sigebert (1977).¹⁰ The thorough introduction to his critical edition (1986) also provides many interesting points of departure.¹¹

We have dealt here as well with two shorter case studies. The computistical tract by Hezelo of Cluny is sporadically cited in the computistical literature, but it has never before been analysed. At the same time we discovered a brief yet unknown correction in the Bibliothèque nationale de France by an anonymous author from Limoges. Finally, we analyse the seven-volume chronicle by Heimo of Bamberg. In the course of that analysis we devote attention to both the similarities and differences with respect to Marianus's chronicle. For the latter case study we were able to avail ourselves of an important article by, once again, Anna-Dorothea von den Brincken (1960).¹² Here, too, we encountered the same problem as before, namely that fragmentary editions and studies had led to a both quantitatively and qualitatively faulty and sometimes erroneous picture of the computistical corrections being studied. Unfortunately, we finished the entire analysis of Heimo's oeuvre before the date of publication of the edition by Hans Martin Weikmann in 2004. The results of this analysis, therefore, must be compared to this edition.¹³

This recurrent observation constituted an important factor in our decision to study these eight computistical corrections in their entirety. A methodology of this kind may well lead to quite extended analyses from time to time, but on the other

¹⁰ Joachim Wiesenbach, 'Der *Liber decennalis* in der Hs. Rom, Biblioteca Angelica 1413, als Werk Sigeberts von Gembloux', *Deutsches Archiv für Erforschung des Mittelalters*, 33 (1977), 171–81.

¹¹ Joachim Wiesenbach, 'Der "Liber decennalis" im Rahmen der mittelalterlichen Komputistik', in Sigebert of Gembloux, *Liber decennalis in modum dialogi compositus*, ed. by Wiesenbach, *Monumenta Germaniae Historica, Quellen zur Geistesgeschichte des Mittelalters*, 12 (Weimar, 1986), pp. 31–168.

¹² Anna-Dorothea von den Brincken, 'Die Welt- und Inkarnationsära bei Heimo von St.-Jakob: Kritik an der christlichen Zeitrechnung durch Bamberger Komputisten in der ersten Hälfte des 12. Jahrhunderts', *Deutsches Archiv für Erforschung des Mittelalters*, 16 (1960), 155–94.

¹³ Heimo of Bamberg, *De decursu temporum*, ed. by Hans M. Weikmann, *Monumenta Germaniae Historica, Quellen zur Geistesgeschichte des Mittelalters*, 19 (Hannover, 2004), pp. 127–496.

hand it helps us avoid the problem of drawing incorrect conclusions brought about by an ignorance of unedited passages. This approach has already proven its value in the articles we have published on the computistical theories of Abbo of Fleury and Marianus Scottus. Moreover, we would offer as a further justification here that it is important to determine whether these computistical corrections can be situated in a particular context. Is it possible for us to discern a clear, intrinsic evolution undergone by a given author? Or are these corrections just a part of a larger whole, a 'packet' in which the year of the Creation of the world and other important events are dated anew? At both the technical-chronological and the intellectual-historical levels this systematic approach has proven in our view to be the most appropriate one.

*The Dates of Christ's Birth and Passion*¹⁴

The Search for the Year of Christ's Birth

The first computistical work to date the Birth of Christ in relation to the Creation of the world is the *Chronographia* by Julius Africanus (d. c. 240). In this, for the most part lost, work, Julius Africanus set the year of Christ's Birth at AM 5500 (AM = *anno mundi*). The Passion of Christ subsequently fell in AM 5531, which was the sixteenth regnal year of Tiberius and the second year of the two hundred and second Olympiad. This Creation era gave rise to innumerable later variations, among which are the Alexandrian era (AM 5493) and the Byzantine era (AM 5509).¹⁵

The work that exerted the greatest influence on early medieval chronography is, however, the *Chronicon* of Eusebius of Caesarea (d. 339). Eusebius began his chronicle with Abraham and counted the years according to Abraham himself based on the Septuagint, that is, a Greek translation of the Hebrew Old Testament. Eusebius chose this Septuagint reckoning because the manuscripts containing the divergent Hebrew reckoning were younger and thus possibly corrupt. Eusebius set

¹⁴ In this section we intend to provide little more than a summary overview of the existing traditions and developments in late antique and early medieval chronography with respect to the issue of dating Christ's year of Incarnation. It is thus not our intention to offer observations about the 'historical Jesus'.

¹⁵ Georges Declercq, *Anno Domini: The Origins of the Christian Era*, Brepols Essays in European Culture, 1 (Turnhout, 2000), pp. 29–39.

the year of the Birth of Christ at 2015 after Abraham. Added to the 2242 years between Creation and the Great Flood, and the 942 years from the Great Flood to Abraham, this resulted in the influential Septuagint era (AM 5199). An important departure from tradition, however, was Eusebius's starting point of the Sixth Age. Whereas Julius Africanus began this Sixth Age with the Birth of Christ, Eusebius situated this starting point in the first year of Jesus's preaching. This led among other things to Eusebius assuming that the fifteenth regnal year of Tiberius was not the year of Christ's Passion, but rather the first year of His preaching (AM 5228). According to Eusebius, Christ's Passion took place in the eighteenth regnal year of Tiberius (AM 5231). We find the same reasoning in the world chronicles, based on that of Eusebius, by Rufinus of Aquileia (d. 410) and Jerome of Strido.

This view was in turn modified, however, in AD 455 by Prosper of Aquitaine (d. 463?), who considered the Passion of Christ to be the starting point of the Sixth Age. Contrary to Eusebius and Jerome, Prosper consequently maintained that Christ had indeed died during the fifteenth regnal year of Tiberius (AM 5228), and thus not in the eighteenth regnal year of this emperor (AM 5231).¹⁶ In considering either the Incarnation, the first year of preaching, or the Passion of Christ as the starting point of the Sixth Age, an equal number of traditions came into being.

At the beginning of the eighth century, the Venerable Bede stood at the dawn of an entirely new chronographic tradition. He counted just 3952 years from the Creation of the world to the Birth of Christ (AM 3952).¹⁷ Bede based this new calculation on the Masoretic text of the Pentateuch, which had been transmitted via Jerome's Vulgate translation. Because this new Creation era could be traced directly to the Hebrew source text, it would become known chiefly as the calculation 'based on the Hebrew verity'. Bede came under severe criticism for this departure from the Eusebian tradition and at one point in time was even accused of heresy. And yet in 725 Bede repeated his controversial assertion that Christ was born in the 3952nd year after the Creation.¹⁸ This chronographic correction would gradually gain acceptance at the expense of Eusebius's Septuagint era. There was a difference of 1247 years between the two calculations (AM 5199 / AM 3952). Bede's abbreviation of the age of the world had important chronographic consequences.

¹⁶ Prosper of Aquitaine, *Chronicon*, ed. by Theodor Mommsen, Monumenta Germaniae Historica, Auctores antiquissimi, 9 (Berlin, 1892), pp. 385–485 (pp. 409–10).

¹⁷ Beda Venerabilis, *De temporibus liber*, ed. by Charles W. Jones, Corpus Christianorum Series Latina, 123C (Turnhout, 1980), pp. 585–611 (p. 607).

¹⁸ Beda Venerabilis, *De temporum ratione liber*, ed. by Charles W. Jones, Corpus Christianorum Series Latina, 123B (Turnhout, 1977), pp. 263–460 and 463–544 (p. 495).

After all, for a long time it put paid to the then current chiliastic notion that the world would very soon come to an end.

Table 1

		<i>Eusebius</i> (<i>>Septuagint</i>)	<i>Bede</i> (<i>>Vulgate</i>)
<i>Aetas I</i>	Adam – Noah	2242 years	1656 years
<i>Aetas II</i>	Noah – Abraham	942 years	292 years
<i>Aetas III</i>	Abraham – David		942 years
<i>Aetas IV</i>	David – Babylon	2015 years	473 years
<i>Aetas V</i>	Babylon – Christ		589 years
<i>Aetates I–V</i>	Adam – Christ	5199 years	3952 years
<i>Aetas VI</i>	Birth of Christ	AM 5199	AM 3952
	Baptism of Christ	AM 5228	AM 3981
	Passion of Christ	AM 5231	AM 3984

The Search for the Year of Christ's Passion

The Gospel Evidence

All of the Gospels agree that Christ died during the Jewish Passover (or Pesach), an annual celebration during which the Jews commemorate the exodus from Egypt with the ritual slaughter of a lamb.¹⁹ It is very important to realize that the Jewish Passover is celebrated on a fixed date in the Jewish lunar calendar, namely in the night between the fourteenth and the fifteenth Nisan.²⁰ And it is here that an important discrepancy comes into play between the Gospels of Matthew, Mark, and Luke on the one hand and that of John on the other. The synoptic Gospels put the date of Christ's crucifixion on the day after the Jewish Pascha, namely on luna xv, whereas John maintains that Christ died on luna xiv.²¹ This difference in interpretation may be due to the fact that in the Jewish calendar the phase of the moon changes with the rising of the moon, in other words at dusk. Thus luna xiv

¹⁹ Declercq, *Anno Domini*, pp. 49–50.

²⁰ Exod. 12. 6, Lev. 23. 5, Num. 28. 16, Hos. 5. 10, II Chron. 35. 1, Ezra 6. 19, and Ezech. 45. 21. It is worth noting that the Jews began a new month when they could indeed actually observe a new moon (*observatio*), and thus did not follow the calculated age of the moon (*calculatio*). Unfavourable weather conditions could thus truly affect the Jewish calendar.

²¹ Matt. 27. 1, Mark 1. 15, Luke 22. 66, and John 18. 28 and 19. 14.

proper actually already begins on the evening before the solar weekday to which this lunar designation is linked. Depending on which explanation one follows, in concrete terms this means that Good Friday can fall either on luna xv (synoptic Gospels) or on luna xiv (Gospel of John).

As far as the solar criteria are concerned, all four Gospels agree that the crucifixion took place on the day before the Sabbath (Friday).²² Consequently the Resurrection fell on a Sunday. Because the Gospels do not mention any specific calendar days, however, various traditions soon sprang up surrounding this event.

Table 2

	<i>Duration of Preaching</i>	<i>Last Supper</i>	<i>Passion of Christ</i>	<i>Resurrection of Christ</i>
Synoptici	1 year	Thu. luna xiiii	Fri. luna xv	Sun. luna xvii
John	3.5 years	Thu. luna xiii	Fri. luna xiv	Sun. luna xvi

The Latin Tradition (Passion = 25 March)

In his apologia, *Adversus Iudaeos*, Tertullian (d. c. 230) notes 25 March as the day of Christ's Passion.²³ Tertullian is thus the first representative of the so-called Latin tradition. Among others, the influential Church Father Augustine of Hippo would later on several occasions confirm 25 March as the date of Christ's Passion.²⁴ The question remained, however, which phase of the moon should be linked to this date of 25 March: luna xiv, according to the Gospel of John, or luna xv, according to the synoptic Gospels?

The first recorded position on this issue is found in the Easter table of Hippolytus of Rome (d. 258). Here the Passion of Christ is dated to AM 5532, and more precisely on 25 March (luna xiv).²⁵ Thus Hippolytus not only followed the Latin tradition, but also linked it to the Gospel of John by maintaining that Christ died on luna xiv. Over a century later, in 354, an anonymous chronographer presented

²² Matt. 27. 66, Mark 15. 42, Luke 23. 54, and John 19. 42.

²³ Quintus Septimius Florens Tertullian, *Adversus Iudaeos*, ed. by Aemilius Kroymann, Corpus Christianorum Series Latina, 2 (Turnhout, 1954), pp. 1337–96 (p. 1363).

²⁴ Augustine of Hippo, *De civitate Dei libri XXII*, ed. by Bernhard Dombart and others, Corpus Christianorum Series Latina, 48 (Turnhout, 1955), pp. 321–889 (p. 655); Augustine of Hippo, *De trinitate*, ed. by Jacques-Paul Migne, Patrologia Latina, 42 (Paris, 1845), cols 815–1098 (col. 894); Augustine of Hippo, *Quaestiones in Heptateuchum*, ed. by Jacques-Paul Migne, Patrologia Latina, 34 (Paris, 1845), cols 547–824 (col. 627).

²⁵ George Ogg, 'Hippolytus and the Introduction of the Christian Era', *Vigiliae christianae*, 16 (1962), 2–18 (pp. 5–7), and Declercq, *Anno Domini*, p. 19.

in his consular annals the very same luni-solar data for the date of Christ's Passion, which demonstrates that this tradition was a guiding one in Rome at the time.

The infiltration of the Alexandrian Easter reckoning into the Roman world was divisive, however. In his prologue addressed to Emperor Theodosius in 386, Theophilus of Alexandria (d. 412) had after all explicitly stated that Christ had died on luna xv.²⁶ Already by the end of the fourth century we find in the Latin West two independent sources that present these lunar parameters according to the synoptic Gospels (luna xv), namely the so-called *Prologus Coloniensis* (395) and the *De solstitiis et aequinoctiis* by pseudo-Chrysostom (before 400).²⁷ In the course of the first half of the fifth century this synoptic tradition was almost universally recognized in the Latin West. By accepting luna xv, Christians could better distinguish themselves from the Jews and also from the heretical quartodecimani, who celebrated Easter always on luna xiv regardless of the weekday. This shift was moreover stimulated by a more or less coincidental combination of computistical parameters in the year 449. In this year Good Friday fell on 25 March (luna xv), which corresponded precisely with the luni-solar data of the year of Christ's Passion. However, the Romans also saw this as a confirmation of the cyclicity of their eighty-four-year cycle, because this year fell precisely 420 years after the year of Christ's Passion ($5 \times 84 = 420$ and $449 - 420 = 29$). In the Roman world, 449 therefore became a year of great symbolism. This computistical coincidence thus confirmed for the Romans not only the cyclicity of their eighty-four-year cycle, but also 25 March (luna xv) as the luni-solar parameters for Christ's Passion.

And yet this synoptic view did draw some fire, for following the Easter controversy of 455 it had become clear that the eighty-four-year cycle was in dire need of reform. Although the eighty-four-year cycle is missing from the *Computus Carthaginiensis* (455), we know from that text itself that this anonymous author, too, associated the year 449 (AD 449 = AP 420 or *Annus Passionis* 420) with the year of Christ's Passion. He explicitly states that Christ died on 25 March (luna xvi).²⁸

²⁶ Theophilus of Alexandria, *Prologus ad Theodosium augustum*, ed. by Bruno Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Der 84jährigen Ostercyclus und seine Quellen* (Leipzig, 1880), pp. 220–26 (p. 225).

²⁷ *Prologus Coloniensis*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Der 84jährigen Ostercyclus und seine Quellen*, pp. 227–35, ch. 4, and pseudo-Chrysostom, *De solstitiis et aequinoctiis*, ed. by Adalbert G. Hamman, *Patrologia Latina, Supplementum*, 1 (Paris, 1958), cols 554–68 (col. 566).

²⁸ *Computus Carthaginiensis*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Der 84jährigen Ostercyclus und seine Quellen*, pp. 279–97 (p. 289).

We find a similar view in the successor to the Roman eighty-four-year cycle, namely Victorius of Aquitaine's 532-year Easter table (457). The Victorian date of Easter for AP 422 (= AD 449) was 27 March (luna xviii), which implies that Good Friday fell on 25 March (luna xvi).²⁹ Neither author, however, had any further influence on the Latin tradition that maintained that Christ had died on 25 March (luna xv).

The Greek Tradition (Resurrection = 25 March)

Initially the Greek-speaking East also followed the Gospel of John. Clement of Alexandria (d. c. 215) dated Christ's Passion to luna xiv. As was the case in the Latin world, however, Alexandria, too, evolved to adopt the lunar dates of the synoptic Gospels (luna xv).

An important representative of this Greek tradition is undoubtedly Annianos of Alexandria (d. after 412). Thanks to the account by the Byzantine chronicler Georgios Synkellos (d. 810/11), we know that in 412 Annianos created a 532-year cycle beginning with the first regnal year of Diocletian (AM 5777). 25 March was given an important place in the Easter table, and not just because the world was created on this date (AM 1), but also because the Birth of Christ fell on this day in the calendar (AM 5501). Moreover, the Resurrection of Christ fell on Sunday 25 March (AM 5534), more specifically on luna xvii. Consequently the Passion of Christ fell on Friday 23 March (luna xv). At the same time Annianos posited that the year of the Creation of the world (AM 1) was the first year in a nineteen-year cycle, and of a four-year intercalary period, as well. According to him, therefore, the year of Christ's Passion fell in the fifth year in a nineteen-year cycle (AM 5534). This was to conform to the Alexandrian Easter reckoning, because Easter (luna xiv) fell indeed on 22 March in the fifth year of the cycle. With his 532-year cycle, Annianos was the first to establish a satisfactory computistical link between the year of Creation and the year of Christ's Passion, based on a luni-solar 532-year cycle. It is, however, very striking to observe that this accurate cycle never received much of a following.³⁰

The *Acta synodi Caesariensis* (before 429) constitute a rare witness to this Greek tradition in the Latin West. These conciliar acts were attributed to Theophilus of

²⁹ Victorius of Aquitaine, *Cyclus paschalis*, ed. by Bruno Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, Abhandlungen der Preussischen Akademie der Wissenschaften: Philosophisch-historische Klasse, 81 (Berlin, 1938), pp. 27–52 (AP 422).

³⁰ Declercq, *Anno Domini*, pp. 34–39.

Caesarea, but in fact they are a pseudepigraphal tract that, having originated in North Africa, enjoyed widespread dissemination throughout all of Western Europe in its day. Pseudo-Theophilus unambiguously states therein that Christ was resurrected on 25 March.³¹ This Greek tradition ultimately enjoyed the tentative yet not insignificant support of the Venerable Bede.³²

Thus 25 March played an important role in both the Greek and the Latin traditions. This date may well be historical, but it also certainly has its figural underpinnings. The Greek tradition held that Christ was resurrected on 25 March, which was likewise the day of the Creation of the world. According to the Latin tradition, Christ died on the same calendar day as His Conception by the virgin Mary. This date is part of a figural scheme in which John the Baptist was conceived at the moment of the autumnal equinox (viii kal. Oct.) and subsequently born at the moment of the summer solstice (viii kal. Iul.), in which the Conception and the Passion of Jesus Christ coincided with the vernal equinox (viii kal. Apr.), and finally in which His Incarnation coincided with the return of light, namely the winter solstice (viii kal. Ian.).

Table 3

	<i>Maundy Thursday (Last Supper)</i>	<i>Good Friday (Crucifixion)</i>	<i>Easter Sunday (Resurrection)</i>
Greek tradition	Thu. 22/3 luna xiv	Fri. 23/3 luna xv	Sun. 25/3 luna xvii
Latin tradition	Thu. 24/3 luna xiv	Fri. 25/3 luna xv	Sun. 27/3 luna xvii

*The Difficult Triumph of Dionysius's Christian Era*³³

In 525 Dionysius Exiguus constructed a ninety-five-year cycle that dovetailed with the Easter table of pseudo-Cyril of Alexandria (d. after 457), a table that had nearly run its course.³⁴ Because this table was still valid for the next six years, namely from 526 up to and including 531, he inserted the last nineteen-year cycle before his own

³¹ Pseudo-Theophilus of Caesarea, *Acta synodis Caesariensis*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Der 84jährigen Ostercyclus und seine Quellen*, pp. 306–10 (p. 310).

³² Beda Venerabilis, *De temporum ratione liber*, pp. 432–33 (ch. 47) and p. 464 (ch. 66).

³³ For a more detailed historical account of the origin and dissemination of the Christian era, see Georges Declercq, 'Dionysius Exiguus and the Introduction of the Christian Era', *Sacris Erudiri*, 41 (2002), 165–246.

³⁴ See also Dionysius Exiguus, *Cyclus decemnovennalis*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, pp. 68–74.

ninety-five-year cycle. Dionysius did, however, make one small emendation. Where pseudo-Cyril retained Diocletian's era for his ninety-five-year cycle (153–247), Dionysius chose to number the ninety-five years of his own Easter table starting at the Birth of Christ. Thus the first year of his reckoning was not Diocletian's 248th year, but rather the 532nd year since the Birth of Christ. Dionysius gave both a positive and a negative justification for this. First, he rejected the Diocletian era, because it was a reminder of a heathen tyrant and persecutor of Christians. Second, he opted for an Incarnation era in order to underscore the status of Christ as Saviour of Mankind.³⁵ Dionysius Exiguus did not at that time realize that his renumbering would later become the standard era for the Latin West. Dionysius considered this era more as an adequate way to organize the ninety-five years of his Easter table.

Through his ninety-five-year cycle, Dionysius Exiguus legitimized the Alexandrian Easter reckoning in Rome and put an end to the centuries-long struggle for power between Alexandria and Rome. The success of Dionysius's Incarnation era was linked to the dissemination of the Dionysian ninety-five-year cycle. It is thanks to the accuracy of this Easter table that this Incarnation era was able to survive the difficult moments during its dissemination.³⁶ The definitive breakthrough came thanks to the computistical oeuvre of the Venerable Bede. Bede himself was the first author to explicitly recognize the luni-solar discrepancy between Dionysius's Incarnation era, on the one hand, and the other computistical data of the Dionysian Easter table, on the other. He wished, however, to promote the dissemination of the Dionysian, that is, Alexandrian, Easter reckoning at the expense of the less accurate Victorian Easter reckoning, and it was therefore for the sake of caution that he largely tempered his justified criticism. The remaining ironic formulation would attract the attention of many later computists.³⁷

³⁵ Dionysius Exiguus, *Epistola ad Petronium episcopum*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, pp. 63–68 (p. 64): 'Quia vero sanctus Cyrillus primum cyclum ab anno Diocletiani CLIII coepit et ultimum in CCXLVII terminavit, nos a CCXLVIII anno eiusdem tyranni potius quam principis inchoantes, nolumus circulis nostris memoriam impii et persecutoris innectere, sed magis elegimus ab incarnatione Domini nostri Iesu Christi annorum tempora praenotare; quatinus exordium spei nostrae notius nobis existeret et causa reparationis humanae, id est, passio redemptoris nostri, evidentius eluceret.'

³⁶ The introduction into Western Europe was a slow and difficult process, for the Dionysian ninety-five-year cycle was met with stubborn resistance, both from the Celtic eighty-four-year cycle in the British Isles and from the Victorian 532-year Easter table on the Continent.

³⁷ Beda Venerabilis, *De temporum ratione liber*, pp. 431–32 (ch. 47): 'Et ideo circulis beati Dionysii apertis, si quingentesimum sexagesimum sextum ab incarnatione Domini contingens

Independently of Bede, an anonymous author of a *De paschali ratione aliisque causis* (737) also made his crucial choice for Dionysius.³⁸ It is thus wrong to suppose that the Dionysian era was transmitted to the Western European continent exclusively through the computistical works of Bede.³⁹

During the reign of Charlemagne (d. 814), a council of expert computists gathered at Aachen in 809 and chose not only Bede's Creation era based on the Hebrew verity (AM 3952), but also Dionysius's Incarnation era.⁴⁰ In all later computistical manuscripts we encounter the results of this important decision.⁴¹ In the ninth-century glosses of Martin of Laon (d. 875), we encounter the very same impasse.⁴² Only at the beginning of the tenth century did the first explicit criticism of Bede's computistical theories emerge, when Helperic of Auxerre (d. c. 900?) implored his reader in the *Liber de computo* to verify empirically by observation the proposed calculations.⁴³ By so doing, Helperic nurtured the necessary climate for a critical investigation of the conflict between Dionysius's Incarnation era and the Dionysian 532-year cycle.

annum, quartam decimam lunam in eo.viii. kal. Apr. quinta feria repereris, et diem paschae dominicum.vi. kal. Apr. luna decima septima, age Deo gratias quia quod quaerebas, sicut ipse promisit, te inuenire donauit.'

³⁸ *De paschali ratione aliisque causis*, ed. by Arno Borst, in *Schriften zur Komputistik in Frankenreich von 721 bis 818*, Monumenta Germaniae Historica, Quellen zur Geistesgeschichte des Mittelalters, 21 (Hannover, 2006), pp. 381–423 (pp. 421–23).

³⁹ Rosamond McKitterick, 'Constructing the Past in the Early Middle Ages: The Case of the Royal Frankish Annals', *Transactions of the Royal Historical Society*, 7 (1997), 101–29 (pp. 108–10).

⁴⁰ *Capitula de quibus convocati compotiste interrogati fuerint*, ed. by Borst, in *Schriften zur Komputistik in Frankenreich*, pp. 1040–53 (pp. 1040–42).

⁴¹ References to the Dionysian Incarnation era can be found also in the anonymous *Libri Computi* (809) and *Liber Calculationis* (818): *Libri computi*, ed. by Borst, in *Schriften zur Komputistik in Frankenreich*, pp. 1087–1334 (p. 1107), and *Liber calculationis*, ed. by Borst, in *Schriften zur Komputistik in Frankenreich*, pp. 1383–1451 (pp. 1392–93 and p. 1436).

⁴² Martinus of Laon, *Glossae ad Bedam de temporum ratione*, ed. by Charles W. Jones, Corpus Christianorum Series Latina, 123B (Turnhout, 1977), pp. 263–460 and 463–544 (p. 430).

⁴³ Helperic of Auxerre, *Liber de computo*, ed. by Jacques-Paul Migne, Patrologia Latina, 137 (Paris, 1853), cols 17–48 (col. 27): 'Hoc autem dico non praejudicans aliorum scientiae, sed simpliciter quid mihi videtur pandens. His de solari per zodiacum cursu etsi inepte, non admodum tamen, ut reor, infructuose, horum ignaris breviter delibatis, jam pro posse susceptum exsequamur negotium.'

HERIGER OF LOBBES (D. 1007)

The Intellectual Pinnacle of Lobbes

Very little is known with any certainty about the first twenty-five years of Heriger's life.¹ We can give only an approximate dating of his birth (c. 942), the year he began his schooling at the cathedral school of Liège (c. 947), the moment when he entered the abbey of St Peter at Lobbes (c. 955), and the moment of his appointment as schoolmaster of this same abbey (before 967). The latter may have occurred in 965, the year in which Everaclus (d. 971), bishop of Liège, tried to restore calm following a turbulent and chaotic period at Lobbes by appointing Folcuin (d. 990) as its abbot. Together with his scholaster Heriger, Folcuin transformed his abbey into the foremost centre of learning in all of Lotharingia.² It was during this heyday that the abbots of Lobbes occupied the most important position but one in the Church hierarchy in the bishopric of Liège.³

As scholaster, Heriger accompanied Abbot Folcuin to Reims, where Gerbert of Aurillac had served as scholaster since 972. This intellectual encounter did not fail to produce results, as Heriger would also write the tract *Regulae numerorum super abacum Gerberti*.⁴ Heriger developed his own multiplication and division technique,

¹ On Heriger's life, see Oskar Hirzel, 'Abt Heriger von Lobbes, 990–1007', *Beiträge zur Kulturgeschichte des Mittelalters und der Renaissance*, 8 (1910), 1–44.

² Pierre Riché, *Écoles et enseignement dans le Haut Moyen Âge: fin du V^e siècle – milieu du XI^e siècle* (Paris, 1989), pp. 166–67.

³ Alain Dierkens, *Abbayes et chapitres entre Sambre et Meuse VII^e–XI^e siècles: contribution à l'histoire religieuse des campagnes du Haut Moyen Âge*, Beihefte der Francia, 14 (Sigmaringen, 1985), p. 124.

⁴ Heriger was indeed inspired by Gerbert's arithmetical principles, but one should not regard this tract as merely a commentary on Gerbert's tract.

as well, which he provided with the necessary examples in his *Ratio numerorum abaci*.⁵ In addition to hagiographical and musical works, during his period as scholar Heriger also wrote a *Gesta episcoporum Tungrensium, Trajectensium et Leodiensium* (before 980), the very first chronicle of a bishopric in the southern Netherlands. In 989 Heriger travelled with Bishop Notger of Liège (d. 1008) to Rome.⁶ The purpose of this trip was presumably political. During the period of Otto III's regency (983–94), Notger was one of the most important imperial counselors. Another, more concrete result of this trip was the confirmation of a number of important privileges for the abbey of St Peter at Lobbes in the form of a papal bull (15/1/990).⁷

Folcuin died in the spring of 990 after having held the office of abbot for a quarter century. Heriger's integrity, great erudition, and friendly ties with Notger of Liège made him the ideal successor. On 21 December 990 Heriger was consecrated abbot by his ecclesiastical lord, Rothardus of Cambrai (d. 995).⁸ His abbacy ushered in a veritable pinnacle in the history of the abbey of St Peter at Liège.⁹ It became the intellectual centre of the bishopric of Liège and possessed at the time the largest library in all of the Low Countries.¹⁰ In his capacity as abbot, too, Heriger saw to the intellectual training of many pupils who later held important offices

⁵ Uta Lindgren, *Gerbert von Aurillac und das Quadrivium: Untersuchungen zur Bildung im Zeitalter der Ottonen*, Sudhoffs Archiv. Beihefte, 18 (Wiesbaden, 1976), p. 55.

⁶ *Annales Laubiensis*, ed. by Georg Waitz, Monumenta Germaniae Historica, Scriptores, 4 (Hannover, 1841), pp. 9–25 (p. 18): '989: Notkerus episcopus vadit Romam et Herigerus cum eo.'

⁷ Joseph Warichez and Desiré Van Bleyenbergh, *L'abbaye de Lobbes depuis les origines jusqu'en 1200: étude d'histoire générale et spéciale*, Université de Louvain: recueil de travaux publiés par les membres des conférences d'histoire et de philologie, 24 (Tournai, 1909), p. 46.

⁸ For the first time in the history of this abbey the monks elected their new abbot themselves. This free privilege was granted to them in 959 by Bishop Everaclus of Liège (959–71), who was influenced by the reformation of Cluny. It was an expression of protest against the increasing influence of secular rulers. For Lobbes the right existed only on parchment until 990, for both Aletramus (957–65) and Folcuin (965–90) were imposed upon the monks by Bishop Everaclus: Hirzel, 'Abt Heriger von Lobbes', p. 22. The laudatory letter in which the monks unanimously choose Heriger is preserved in the episcopal chronicle of Cambrai: *Gesta episcoporum Cameracensium*, ed. by Ludwig C. Bethmann, Monumenta Germaniae Historica, Scriptores, 7 (Stuttgart, 1968), pp. 402–89 (pp. 445–46).

⁹ A new monograph on the intellectual life in Liège and Lobbes in the time of Heriger and Notger is currently being prepared by Prof. Robert Gary Babcock (Yale University).

¹⁰ Cora E. Lutz, *Schoolmasters of the Tenth Century* (Hamden, 1977), p. 100. For an overview of the valuable library at Lobbes, see François Dolbeau, 'Un nouveau catalogue des manuscrits de Lobbes aux XI^e et XII^e siècles', *Recherches Augustiniennes*, 13–14 (1978–79), 3–36 and 191–248.

in the Church. Hugo (d. 1053) became Abbot of Lobbes in 1032; Adalbold (d. 1026) became Bishop of Utrecht in 1010; Olbert (d. 1048) studied first in Paris, Troyes, and Chartres and subsequently became Abbot of Gembloux; Wazo (d. 1048) was first scholaster of the cathedral school at Liège and ultimately became Bishop of Liège (1041–48). It is possible that even Burchard of Worms (d. 1025), too, was a student of Heriger's.

Heriger gradually and increasingly grew into the role of a critical intellectual. He wrote at least three tracts in which he consistently analysed a specific issue and provided it with a solution. The actual text of his first computistical tract has been lost, but based on a brief reference in his *Epistola ad Hugonem* we know that according to Heriger it was possible and appropriate for Easter Sunday to coincide with the feast of the Annunciation (25 March).¹¹ Nor has the text of Heriger's second tract survived, but thanks to Berno of Reichenau (d. 1048) we know that in it Heriger stated that there was a possible maximum of four, not five, Sundays in any given Advent season.¹² Heriger also got involved in the debate on the Eucharist that was concerned with whether during the consecration Christ was present in the flesh or only symbolically. In his *Dicta De corpore et sanguine Domini* Heriger developed a nuanced compromise. He studied the attributes of the important number 3, using arithmetical, syllogistic, and even cosmological arguments.¹³ It is in this period that Heriger recorded a correction to Dionysius's Incarnation era in

¹¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Alfred Cordoliani, in 'Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon sur l'ère de l'Incarnation de Denys le Petit', *Revue d'histoire ecclésiastique*, 44 (1949), 463–87 (pp. 480–84; further citations are to this edition unless otherwise noted): 'Nam cum sint v dies a xii kalendis usque ad viii, si dies dominicus paschae, aut sabbatum sanctum, aut parasceven, aut coena Domini praepedierint quominus annuntiatio beatae mariae matris celebrari possit in quolibet ex ipsis v diebus, anticipari valebit et rescriptum nostrum adversus haec, si petieris, impetrare valebis' (p. 484). This combination of Annunciation and Good Friday happened, among other years, in 991, thus possibly in the year in which Heriger wrote his first tract.

¹² Berno of Reichenau, *Epistola de controverso numero dierum dominicarum adventus Domini*, ed. by Philippus Jaffé, *Bibliotheca rerum germanicarum*, 3 (Berlin, 1869), pp. 368–71 (pp. 368–69): 'Sed et abbas Herigerus, vir non parvae auctoritatis, nostris temporibus proprium super hac re libellum composuit in quo ut asserunt qui illum legerunt probabilibus argumentis eos convincit contra patrum instituta agere, qui plus quam quatuor dominicos dies adventus Domini celebrare contendunt.' This dialogue with his pupil Adalbold of Utrecht (d. 1026) was presumably linked to the Council of Orléans (994) at which this issue was discussed. Berno of Reichenau was present at this very same council: Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', p. 143 n. 2.

¹³ Robert G. Babcock, 'Heriger and the Study of Philosophy at Lobbes in the Tenth Century', *Traditio*, 40 (1984), 307–17 (pp. 313–16).

his *Epistola ad Hugonem*. On 31 October 1007, Abbot Heriger of Lobbes died. Like his predecessors, he was buried in the St Ursmarus church in Lobbes.¹⁴

Heriger's Correction of the Christian Era

Introduction

In a letter to his pupil Hugo, Heriger formulated his criticism of the Incarnation era of Dionysius Exiguus. The oldest extant version of this text is found in an eighteenth-century printed edition (1717).¹⁵ According to its editors the manuscript upon which they based their edition dated to Heriger's own day.¹⁶ The description of this manuscript in their travel narrative, also published in 1717, bears a striking similarity to the description in a catalogue dated to 1049.¹⁷ Presumably this important manuscript, perhaps even the original one, was destroyed in a devastating fire that ravaged the abbey of St Peter in 1794. Based on Sanderus's survey of old catalogues in Belgium of that period, we know that the neighboring abbey of St Lambertus at Liessies possessed a copy of Heriger's letter in the seventeenth century.¹⁸ This

¹⁴ *Gesta abbatum Lobiensium continuata*, ed. by Henri Berkans and Ludovic-Jules Wankenne, Cahiers de Thudinie, 2 ([n.p.], 1993), pp. 80–156, ch. 2.

¹⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Edmond Martène and Ursin Durand, *Thesaurus Novus Anecdotorum*, 1 (Paris, 1717), pp. 112–18.

¹⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Martène and Durand, p. 112: 'Ex ms. cod. Lobiensi - tempore auctoris scripto.' The presence of very few mistakes in grammar and contents suggests that it was a very reliable text, indeed.

¹⁷ Edmond Martène and Ursin Durand, *Voyage littéraire de deux religieux bénédictins de la Congrégation de Saint Maur*, 2 vols (Paris, 1717), II, 210 and 106: 'Après avoir dit la messe nous voulûmes aller prendre congé de l'abbé, mais le maître d'hôtel nous fit voir un manuscrit qu'il avoit dans sa chambre, qui nous retint encore un jour. Nous y trouvâmes une *lettre d'Harigerus* abbé de Lobbes dont Sigebert fait mention, les *commentaires d'Abbon* abbé de Fleury sur Victorius, ceux d'*Hilperius* aussi abbé, et de *Walbodo* dediez au pape Silvestre II avec une courte chronique continuée par les religieux jusqu'à nos jours.' Dolbeau, 'Un nouveau catalogue des manuscrits de Lobbes', p. 22: 'Eiusdem [=Bedae] De temporibus et natura rerum lib III. Eiusdem epistola de aequinoctio, et epistola Heriger abbatis ad Hugonem de quibusdam quaestionibus. 107. Abbonis abbatis commentum super calculo Victorii. Ygini de astronomia. 108. Annales inscribitur fol. volumen. 109. Hilperici de compoto Macrobbii [s]uper somnium Scipionis lib. II.'

¹⁸ Antonius Sanderus, *Bibliotheca belgica manuscripta*, Archief- and bibliotheekwezen in België. Extranummers, 7, 2 vols (Brussels, 1972), II, 24: 'Herigerus: Epistolaris responsio de cyclo paschali, et eiusmodi contra Dionysium Exiguum abbatem.'

manuscript, however, has also been lost, so that we no longer possess a manuscript witness to Heriger's letter. Martène and Durand's edition was reprinted twice, namely by Migne (1853) and by Cordoliani (1949).¹⁹

The recipient of this letter is a certain Hugo, whom we may identify with a fairly high degree of certainty as Heriger's pupil of that name, who later became Abbot of Lobbes. Martène and Durand possessed a fragment of Hugo's letter to Abbot Heriger, which formed the direct occasion for Heriger's computistical tract. From the initial lines of the fragment it appears that Hugo had grappled with Bede's famously ironic remark.²⁰ Further information about Hugo's letter is not available, neither in Martène and Durand's travel narrative nor in the catalogue of 1049.

Heriger's letter certainly dates to before 999, because he does not yet refer to Gerbert of Aurillac with his papal name, Silvester II (999–1003).²¹ Heriger's reference to the conciliar decrees of Toledo is also to be found in the synodal acts of St Basil, which were edited by Gerbert himself in 995.²² Therefore it is not illogical to conclude that Heriger's letter also dates from this period.

Epistola ad Hugonem (c. 995)

From the very outset Heriger presents his pupil with a choice between Dionysius Exiguus on the one hand and the Gospels on the other. He did not doubt for a moment that Hugo would choose the authority of the Gospels over that of Dionysius.²³

¹⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 139 (Paris, 1853), cols 1129–36, and Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, pp. 480–84.

²⁰ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Martène and Durand, pp. 117–18: 'Domno abbati H. Frater Hugo. Quod Beda & Dionisyus in opusculis suis videntur diversa sentire, quod aliquando quoque plerosque confundit, vestro petimus corrigi examine. Nam Beda qui in capitulo XLVII quod inscribitur de annis Dominicae Incarnationis authenticè, immo et evangelicè viii. Cal. Aprilis xv Luna diem.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

²¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'domno gerberto illam ex toletano concilio praerogante'.

²² Gerbert of Aurillac, *Acta concilii Remensis ad sanctum Basolum*, ed. by Georg Heinrich Pertz, *Monumenta Germaniae Historica, Scriptorum*, 3 (Stuttgart, 1968), pp. 658–93, chs 3, 15, 32–33, 35–39, 44, and 46.

²³ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Frater Hugo, si interrogis cui potius credere debeas, quandoquidem dissentiunt, evangelio an Dionysio, responsurum te non diffido quia potius evangelio.'

Because the Gospels contained the truth, it was a logical conclusion for Heriger to draw that Dionysius had simply made a mistake.²⁴ Subsequently Heriger zoomed in on the gospel evidence. He referred to the fact that according to Luke Christ had been baptized at about the age of thirty in the fifteenth regnal year of Emperor Tiberius (d. AD 37).²⁵ He drew a link to the chronicle of Eusebius-Jerome, in which one reads that Christ had died in the eighteenth regnal year of the same Tiberius.²⁶

Heriger related this evidence to the lunar fact that the Jewish Passover had to take place on luna xiv.²⁷ Because the Last Supper fell on a Thursday, it followed that Christ had died on Friday luna xv and was resurrected on Sunday luna xvii.²⁸ By analogy with Bede's ironic remark, Heriger compared this gospel evidence with the lunar parameters for the years AD 32, AD 33, and AD 34 in a Dionysian 532-year cycle.²⁹ Heriger came up with the same negative results, because in none of these years did Easter Sunday fall on luna xvii.

Contrary to Bede, however, Heriger provided three different years, because he was familiar with the same number of traditions concerning the exact age of Christ.³⁰

²⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Sed evangelio in veritate constante, Dionysius invenitur multum dissentire.'

²⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Habet enim veritas evangelii quia anno decimo quinto imperii Tiberii caesaris baptizatus sit Christ, incipiens quasi annorum triginta.' See also Luke 3. 1 and 23.

²⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Secundum vero chronica Eusebii, vel etiam Hieronymi, qui nisi probasset, non ita transtulisset, anno xviii Tiberii venit ad passionem, qui potuit esse annus xxxiii incarnationis ejus.' See also Eusebius of Caesarea and Jerome of Strido, *Chronicon*, ed. by Rudolf Helm, *Die Griechischen Schriftsteller der ersten Jahrhunderte: Eusebius Werke*, 7 (Berlin, 1984), Olymp. 202/3.

²⁷ As stated in Exod. 12. 6, Lev. 23. 5, Num. 28. 16, Hos. 5. 10, II Chron. 25. 1, Ezra 6. 19, and Ezech. 45. 21.

²⁸ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Iterum habet veritas evangelii xiv luna, id est feria v, celebrasse eum pascha legale, nec illud vel anticipasse, vel distulisse; feria autem vi, id est luna xv, crucem ascendisse; sabbato, id est luna xvi, in sepulcro quievisse; dominica vero, id est luna xvii, resurrexisse.'

²⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Ergo aperto circulo Dionysii, si ita inveneris, anno xxxii incarnationis ejus, vel xxxiii, vel xxxiiii, qui sunt post circumulum magnae reversionis dlxiii, vel dlxv, vel dlxvi, age deo gratias, sicut Beda praecipit, quod tamen ironice dixit.' Heriger's choice of words here is very similar to that of Bede's ironic remark. See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

³⁰ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Ideo autem tres numeros annorum posui, quia alii putaverunt eum anno xxxii, alii xxxiii, fuisse passum, alii autem xxxiiii: quibus Beda magis assentire videtur.'

First he reported the 'evangelical verity' that Christ had died after three and a half years of preaching (AD 33).³¹ In a rather vague reference, Heriger subsequently reported that there was a tradition that equated the first year of preaching with the thirtieth year of Christ and consequently put Christ's Passion in the year AD 32.³² Third and finally, Bede had suggested in his ironic remark that Christ had died in AD 34.³³

This difference in opinion between the 'evangelical verity' and Bede prompted Heriger to explore the contradiction further. Heriger began his analysis by formulating a double distinction between the synoptic Gospels on the one hand and the Gospel according to John on the other. Contrary to the synoptic Gospels, John emphasized the miraculous nature of Christ in reaction to contemporary heresies that doubted this aspect of Christ's life.³⁴ The second point of difference was, however, also the presence of a clear chronological framework in the Gospel of John.³⁵ By mentioning the annual Passover celebration, John systematically distinguishes four different years during which Jesus preached.³⁶ He mentions the cleansing of the temple

³¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'Secundum autem veritatem evangelii, vel revelationem Joannis, vel prophetiam Danielis, tribus semis annis praedixit.' See also Apoc. 13. 5 and Dan. 7. 25 and 12. 7.

³² Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 480: 'et alii praedicationis ejus annorum primum putaverunt, nativitatis ejus esse xxx, ut statim post baptismum et jejuniū coeperit praedicandi exordium'. This vague reference of Heriger's may have been to Beda Venerabilis, *In Marci evangelium expositio*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 92 (Paris, 1850), cols 133–302, 1:1.

³³ In his ironic remark, Bede only mentions the year 566 (AD 34): Beda Venerabilis, *De temporum ratione liber*, ch. 47.

³⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, pp. 480–81: 'Scimus autem Joannem evangelistam, post reditum de exilio, non solum propter haereses quae se absente emerant confutandas, verum etiam quia caeteros evangelistas legeret multa de miraculis christi, pauca vero de divinitate dixisse, quaedam vero insigniora praetermisisse, utpote de nuptiis in Cana Galilaeae, de Nicodemo, de caeco nato, de languido ad piscinam, de muliere ad puteum, de Lazaro suscitato, de pedum lavatione, et alia multa.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 4050).

³⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'ipsa vero quae dixerant confuse et inordinate, id est priora posterius, posteriora prius posuisse'.

³⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Igitur aggressus est numerum annorum praedicationis Christi per dies festos paschae distinguere, et quampulchre ab ipsis diebus voluit exordium sumere: miserunt Judaei ab Jerosolymis; altera die, vidit Joannes Jesum venientem ad se; altera, die stabat Joannes, et ex discipulis ejus duo; die tertio, nuptiae factae sunt in Cana Galilaeae.'

(John 2. 13), the healing of the lame at the pool (John 5. 1), the multiplication of the five loaves (John 6. 4), and finally the resurrection of Lazarus (John 12. 1).³⁷

Heriger tied all of this evidence together: (1) the Gospel of Luke told him that Christ was thirty years old in the fifteenth regnal year of Tiberius; (2) the chronicle of Eusebius-Jerome reported Christ's Passion in the eighteenth regnal year of Tiberius; and finally, (3) John distinguished four separate years during Jesus's preaching.³⁸ Bede held a different opinion, however, for according to Heriger he put the year of Christ's Passion in the nineteenth regnal year of Tiberius.³⁹ This interpretation of Heriger's is striking, because Bede dated the year of Christ's Passion unambiguously to the eighteenth regnal year of Tiberius.⁴⁰

Table 4

<i>Gospel of Luke</i>		<i>Eusebius-Jerome</i>			<i>Bede</i>	
<i>Gospel of John</i>						
	Regnal years of Tiberius	Age of Christ	Regnal years of Tiberius	Age of Christ	Regnal years of Tiberius	Age of Christ
1	15	30	16	31		
2	16	31	17	32		
3	17	32	18	33		
4	18	33	19	34		

However, Heriger encountered a much greater problem, namely that neither of the two years could be reconciled with Dionysius's Incarnation era.⁴¹ In the year

³⁷ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Igitur primo anno praedicationis suae, cum esset Jerosolymis in pascha, ejecit vendentes et ementes de templo; secundo anno in die festo paschae sanavit languidum ad piscinam; tertio anno, post miraculum de quinque panibus factum, erat proximum pascha, dies festus Judaeorum; quarto anno venit ante sex dies paschae Bethaniam, ubi Lazarum suscitavit, quando et passus est.'

³⁸ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Nam si anno xviii Tiberii passus est, qui forte fuit dimidius super tres praedicationis suae annos, ergo primus praedicationis ille fuit, qui decimus quintus Tiberii exstitit, quo et baptizatus est.'

³⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Sed forte, secundum supputationem Bedae, initium decimi noni Tiberii caesaris anni potuit esse quartus praedicationis, qui fuit et passionis, id est xxxiiii incarnationis, praecedentibus iii annis, id est xxxi, xxxii, xxxiii.'

⁴⁰ Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3984). Nor do the manuscript variants leave any room for Heriger's interpretation.

⁴¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Sive ergo xxxiii, sive xxxiiii secundum cyclum Dionysii, ab incarnatione sua passus sit anno, nullo modo consentit

AD 34 the paschal term fell on a Sunday (instead of on a Thursday) and Easter Sunday fell on luna xxi (instead of on luna xvii). The year AD 33 was even less significant, in that Easter Sunday fell in April, which went against the solar data of both the Greek and the Latin traditions.⁴²

Having encountered these clear contradictions, Heriger began his search for a solution and once again turned to the Gospels. He constructed a framework based on the Gospel of Luke (Luke 1. 26), in which the conception and incarnation of both John the Baptist and Christ fell repeatedly on the fifth kalends.⁴³

Table 5

25 March	Conception and Passion of Christ
24 June	Birth of John the Baptist
24 September	Conception of John the Baptist
25 December	Birth of Christ

According to this figural scheme, Christ was both conceived and died on 25 March. The Jews had after all ignored the biblical warning not to cook the lamb in its mother's milk (Exod. 23. 19). Heriger did not consider it exceptional that a biblical prohibition had been violated, for the Bible itself indicated that certain prohibitions were destined to be broken (Ps. 39. 2).⁴⁴ A similar example is Jesus's

evangelicae veritatis relatio; nam anno xxxiiii luna in pascha, non xvii, ut dictum est, sed provenit xxi, nec xiiii luna in feria v, sed provenit in die dominica. Passio vero non vi feria, nec in x kalendarum Aprilium, secundum Graecos; nec in viii kalendas, secundum Latinos; sed nec resurrectio in viii kalendarum Aprilium, secundum Graecos, nec in vi kalendas, secundum Latinos, ullo modo proventura est. Iam vero quam inconsistentium sit in xxxiii ab incarnatione sua passum esse, vel resurrexisse, palam liquebit, cum haec omnia potius occurrant in Aprili quam in martio.'

⁴² The Greek tradition put the Resurrection of Christ on 25 March (luna xvii), the Latin dated it on 27 March (luna xvii). See the Introduction, the section on 'The Dates of Christ's Birth and Passion: The Search for the Year of Christ's Passion'.

⁴³ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Evangelio autem praescribente, scimus quia in aequinoctio autumnali praenuntiatus sit Joannes baptista; in mense autem sexto, id est martio, post dimidium annum, eisdem kalendis, annuntiatus est Christ, quo conceptus est et passus, secundum illud: non coques agnum in lacte matris suae; id est, non eo die Christum interficias, quo conceptus est, quod, licet vetuerit, praesciebat tamen Judaeos non obauditos.' In Luke, one reads only that John was born in the sixth month.

⁴⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'sicut et adae lignum scientiae boni et mali vetuit, quod tamen eum non observaturum praescivit, propter quod dicit psalmista: beatus vir cui non imputavit Dominus peccatum. O quam periculosum est vel a deo vel ab aliquo sancto viro talia praemonendo audire, cui quia spiritus inest prophetiae, raro contingit quae prohibet non evenire! Languido enim ad piscinam sanato tristis praemonuit: vade jam, et noli

vain warning in the parable of the cripple whom He had just healed (John 5. 14). The very same cripple would deal a blow to His face on the day of His Passion (John 18. 22).⁴⁵ Thus, this combination of biblical citations constituted for Heriger an argument for demonstrating that Christ had both been conceived and died on 25 March.⁴⁶

Subsequently Heriger formulated an important methodological objection. He seriously questioned the way in which Dionysius Exiguus had thought himself to be able to bridge the long period of time from his own period to the year of Christ's Birth with such sublime confidence.⁴⁷ Because Dionysius Exiguus proved to be insufficiently trustworthy, Heriger aligned himself with the Greek and Alexandrian sources, which were both temporally and geographically closer to the gospel period.⁴⁸ Heriger found the requisite support for his argument in the *Tusculanae disputationes* of Cicero (d. 43 BC).⁴⁹

peccare, ne deterius tibi aliquid contingat. Deterius quippe ei contigit, quando in passione Christo alapam dedit.'

⁴⁵ Heriger's identification of this cripple with Pilate's servant is very unconventional and very possibly unique (with thanks to Prof. Reimund Bieringer, K.U. Leuven).

⁴⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 481: 'Igitur his in veritate constantibus, liquet Christum uno eodemque die et conceptum et passum.'

⁴⁷ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, pp. 481–82: 'De calendario autem, vel annis dominicae incarnationis, propter inscitiam temporum, magna est consultatio chronographorum. Qui enim scire potuit abbas Dionysius a suo tempore retro computans annos imperatorum usque ad quadragesimum secundum augusti caesaris annum, qui fuit annus primus nativitatis Christi, secundum chronica eusebii? Quomodo, inquam, indubitate scire potuit qui integris annis regnaverint, qui aliquot menses vel dies superhabuerint, quanta interregna fuerint, id est, uno defuncto et altero substituto, quantum temporis intercesserit?'

⁴⁸ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Sed Graecis, auctore Nicaeno concilio et beato Cyrillo Alexandrino episcopo, magis assentiendum, qui et finitimi orientalibus et vicini apostolicorum virorum fuere temporibus.' Heriger refers here to the *Praefatio de ratione Paschae* of pseudo-Cyril of Alexandria (written after 457) and to the *Acta synodi* of pseudo-Theophilus of Caesarea (written before 429), whom he incorrectly associates with the Council of Nicaea (325). Heriger's argument for temporal and geographical proximity is also found in Beda Venerabilis, *De temporum ratione liber*, ch. 47.

⁴⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Omnis enim antiquitas, ut ait orator maximus, quo proprius aberat ab ortu et divina progenie, eo melius quae erant vera cernebat.' See also Marcus Tullius Cicero, *Tusculanae disputationes*, ed. by Max Pohlenz, M. Tullii Ciceronis scripta quae manserunt omnia, 14 (Leipzig, 1918), pp. 217–483, 1:12. Heriger did indeed possess a copy of Cicero's work: Dolbeau, 'Un nouveau catalogue des manuscrits de Lobbes', p. 32 (n. 273).

The Alexandrians reckoned eight years fewer than the ‘Western’ Incarnation era of Dionysius Exiguus.⁵⁰ In other words, they dated the year of Christ’s Birth to the ninth year of Dionysius’s Incarnation era (1 VA⁵¹ = AD 9).⁵² Consequently Christ’s thirty-fourth year fell in the forty-third year according to Dionysius (34 VA = AD 42), and that year indeed contained all of the computistical characteristics which were necessary according to the Gospels.⁵³

Table 6

<i>Gospel evidence</i>	<i>AD 42</i>
Last Supper	Thu. 22/3 (luna xiv)
Passion of Christ	Fri. 23/3 (luna xv)
Christ in the Sepulcher	Sat. 24/3 (luna xvi)
Resurrection of Christ	Sun. 25/3 (luna xvii)

Next Heriger attempted to demonstrate the computistical superiority of the Greek world generally. Heriger found an initial example in the superiority of the Nicene vernal equinox (21 March) with respect to the Julian vernal solstice (25 March).⁵⁴ Both the Jews and the Orientals wrestled in their own way with the problem of the equinox.⁵⁵ The Jews followed a purely lunar system, but due to a

⁵⁰ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: ‘Hi itaque viii annos ab incarnatione Domini minus quam circulus Dionysii supputant.’ Heriger refers here not to the so-called Alexandrian Creation era (AM 5493), but to the Byzantine Creation era (AM 5509).

⁵¹ VA stands for *Verior Assertio*. *Anni secundum veriolem assertionem* is an expression used by Abbo of Fleury and is meant here to designate the years in a ‘corrected’ era (VA), often compared to the faulty Dionysian era (AD).

⁵² Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: ‘ergo, secundum illos, primus ab incarnatione Domini annus is est qui est in circulo Dionysii nonus’.

⁵³ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: ‘Is autem est xxxiiii, qui est in circulo Dionysii xlii, habens vii concurrentes, xiiii epactam, terminum in xi kalend. Aprilis, feria scilicet v, quando et coena facta est, et vespere pascha celebrari coepta est, sicut dicit Dominus; die xiiii ad vespertum pascha Domini est, et in xv sub luna solemnitate celebrabitur, quando et passus est, id est x kalendas Aprilis, et sabbatum quando requieuit in sepulcro, luna xvi, ix kalendas Aprilis, et dominicum diem resurrectionis viii kalendas Aprilis, luna xvii.’

⁵⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: ‘Praeclare: nam in quaestionibus ptolomaei regis cum lxx interpretibus de libro exodi agitat, deprehensum est aequinoctia et solstitia in xii kalendarum, potius quam in octavis, etiam ratione horologica esse adnotandum.’ See also Beda Venerabilis, *De temporum ratione liber*, ch. 30.

⁵⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: ‘Constantino quippe augusto xviii imperii sui anno baptizato, scandalum ortum est per ecclesias orientales noviter aedificatas, aut renovatas, non solum de similitudinibus inter alexandrum alexandrinum episcopum, et

variant intercalary moment in any given embolismic month it could happen that in some embolismic years Passover was celebrated before the actual equinox.⁵⁶ The Orientals, on the other hand, did not just violate the lunar criteria for the calculation of Easter, they went against the solar criteria, as well.⁵⁷ Presumably Heriger is referring here to the Anatolian lunar limits (luna xiv–xx) and the Anatolian vernal equinox (25 March).⁵⁸

In order to arrive once again at a uniform Easter reckoning, following an initial attempt at reconciliation by Bishop Osius of Cordoba (d. c. 358), it was decided that a conciliar meeting would be called at Nicaea (325).⁵⁹ This council not only condemned the Arian teachings, but also excommunicated all those who diverged from the Nicæan reckoning of Easter.⁶⁰ This meant that it was no longer possible to observe the Julian equinox (25 March), because some of the nineteen Nicæan

arium presbyterum suum, sed etiam de pascha celebrando, quod prius ab orientalibus agebatur quam ab ipsis Judæis.' Heriger uses the term 'Orientals' for all peoples dwelling east of the Latin West of his day.

⁵⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Judæi enim, annos lunares sequentes, in quibusdam embolismis uno mense antequam nos, et hoc ante aequinoctium celebrant, sed hic error ex libro Bedae de temporibus facile decutitur.' Heriger refers here presumably to Beda Venerabilis, *De temporum ratione liber*, ch. 45. In order to prevent the lunar year from running through the whole solar year, and in the case of Easter reckoning particularly to keep the lunar month Nisan in the solar season spring, an additional or so-called embolismic lunar month of thirty days has to be intercalated each time the difference (or age of the moon) exceeds that number of days. See also Declercq, *Anno Domini*, p. 61.

⁵⁷ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Orientales vero, qui successores apostolorum jactabant se consecrari, sed concordiam solarium et lunarium annorum non usquequaque perscrutati, utroque claudicabant pede.'

⁵⁸ For more on Anatolius's paschal tables, see Daniel P. McCarthy, 'The Lunar and Paschal Tables of *De ratione paschali* attributed to Anatolius of Laodicea', *Archive for History of Exact Sciences*, 49 (1996), 285–320 (p. 308).

⁵⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Quapropter rogatu sylvestri papae missus est ab imperatore osius cordubensis episcopus, qui utrumque corrigeret, et pacem inter alexandrinus componeret, sed reversus est sine effectui. Igitur rogatu sylvestri, et jussu constantini congregata synodus apud nicæam, per duos menses celebrata est, ubi error arii facile deprehensus, cito fuit damnatus.'

⁶⁰ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Sed de paschali observatione quaestiones difficiles et pene inextricabiles diu sunt agitatae. Ad ultimum quaestionibus ptolomaei regis cum lxx interpretibus recitatis, xliii quoque lunis paschalibus secundum pachomium confirmatis, sancitum est ut quicumque deinceps pascha cum Judæis, id est ante aequinoctium, celebrasset, anathema esset.'

paschal terms and even some Easter Sundays fell on or before 25 March.⁶¹ An accurate calculation of Easter could therefore only be achieved based on the Nicaean vernal equinox (21 March).⁶²

For the second argument in his disquisition Heriger posited a figural link between the week of Creation in the one hand and Holy Week on the other. Heriger knew the old Roman tradition that the world was created on Sunday 18 March.⁶³ Subsequently the heavenly bodies came into being on Wednesday 21 March (luna xiv), which constituted new evidence for the superiority of the Nicaean vernal equinox.⁶⁴ Heriger extended this argument, however, and declared that man was created on Friday 23 March.⁶⁵ Eve was born from Adam's side on this sixth day of Creation, and in Heriger's view it followed logically that the blood had flowed from Christ's side on the same day.⁶⁶

⁶¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 482: 'Sed in xiiii lunis pachonii invenitur ante aequinoctium, quod in viii kalendas Aprilis putabatur xiiii luna paschalis, v die, id est in xii kalendas Aprilis; aut iiii die, id est in xi kalendas Aprilis, ubi et terminus et aliquoties ipsa solemnitas reperitur; aut iii die, id est in x kalendas Aprilis, ubi solemnitas tantum; aut pridie, id est ix kalendas Aprilis, ubi utrumque; aut in ipsa viii kalendarum die, ubi identidem adnotatur.' This was the case for the sixteenth (21 March), the fifth (22 March), the thirteenth (24 March), and the second (25 March) year of a nineteen-year cycle. It follows logically that Easter Sunday falls at the earliest on 22 March.

⁶² Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, pp. 482–83: 'Itaque, aut anathemati subjacendum, aut sicut in nicaeno concilio sancitum est, pascha est celebrandum. Conclusum est igitur et aegyptiaca disciplina, qui peritiores in arte calculandi sunt, utpote apud quos nunquam pluviae, nunquam nubila fuere, et horologica ratione aequinoctium vernale in xii kalendarum potius esse.'

⁶³ See also Bede Venerabilis, *De temporum ratione liber*, ch. 66. On this ancient Roman tradition, see Faith Wallis, *Bede: The Reckoning of Time*, Translated Texts for Historians, 29 (Liverpool, 1999), pp. xxxvi–xxxvii.

⁶⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Et quam congruenter, quam apte; feria quippe iiii dum crearentur sidera, ipso momento, dividitibus sphaeram coelestem sole et luna, et sole quidem arietem, luna autem obtinente libram, patuit in xii kalendarum aequinoctium vernale fuisse. Ergo in xiii kalendarum, feria iii, apparuit arida; in xiiii kalendarum feria ii, factum est firmamentum; in xv kalendarum, id est feria i, affigitur primus dies saeculi, et ingressio solis in arietem.'

⁶⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'His ita in veritate constantibus, feria v, id est xi kalend. Aprilis creati sunt pisces et aves; feria autem vi, id est x kalend. Aprilis, factus est homo, et producta est de latere ejus eva.'

⁶⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Et ubi auctoratus, ubi sanctius per crucem Christi redimeretur homo, et de sanguine profluenti e latere Christi baptizaretur ecclesia, quam in ipso die et eodem calendario?'

The parallel between the week of Creation on the one hand and Holy Week on the other was strengthened by the fact that God's day of rest (the Sabbath) was figured by Christ's resting in His grave on Holy Saturday.⁶⁷ In making this link between the Creation and Salvation, Heriger revealed himself as a proponent of the Greek tradition, which regarded 25 March as the date of Christ's Resurrection.⁶⁸

Table 7

	<i>Week of Creation</i>	<i>Holy Week</i>
Sunday 18/3	° day + night	
Monday 19/3	° heavenly firmament	
Tuesday 20/3	° land + water	
Wednesday 21/3	° heavenly bodies	
Thursday 22/3	° birds + fish	Last Supper
Friday 23/3	° man	Passion of Christ
Saturday 24/3		Burial of Christ
Sunday 25/3		Resurrection of Christ

Heriger found other indications of the superiority of the Nicaean Easter reckoning in Bede's computistical oeuvre, where it was clearly to be read that Easter Sunday was to be celebrated after the vernal equinox, in the third week of the month and on a Sunday.⁶⁹ The Jews, on the other hand, celebrated Passover (luna xiv) on any weekday up to the first Saturday following the vernal equinox.⁷⁰ Heriger argued subsequently, based on Luke (14. 1), that the Jewish Passover had

⁶⁷ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Et sicut deus ab operibus suis requieuit in die sabbato, id est viiii kal. April., ita et Christ in sepulcro. Successit resurrectionis ejus dies dominica, id est viii kalend. April., quae non solum prima, sed etiam inscribitur pro octava.'

⁶⁸ See the Introduction, the subsection on 'The Greek Tradition (Resurrection = 25 March)' under 'The Dates of Christ's Birth and Passion: The Search for the Year of Christ's Passion'.

⁶⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Ut autem transcenso aequinoctio, utque in tertia hebdomada, utque dominica die, sicut angelus per pastorem mandavit victori papae romano, facile est inveniri apud Bedam in libro de temporibus de ipsorum sacramento.' See also Beda Venerabilis, *De temporibus liber*, ch. 15.

⁷⁰ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Nam Judaei quocunque die post sabbatum, id est una vel prima sabbati, quae modo dicitur dies dominica, aut secunda sabbati, aut tertia sabbati, aut quarta sabbati, aut quinta sabbati, luna xiiii occurrisset, eodem die, facto vespere, et xv luna incipiente, habebant pascha, et quot dies superessent usque ad sabbatum, protrahabant illud usque ad sabbatum, et ipsum pascha aliquoties v diebus, aliquoties iiii et deinceps, aliquoties uno tantum die vel duobus ante sabbatum.'

to have fallen on a Thursday in the year of Christ's Passion.⁷¹ Because the distinction between the Jewish Passover and the feast of the unleavened loaves did not occur in Matthew (26. 17), Heriger referred for further clarification to the computational works of Bede, who had already studied this distinction.⁷²

Next Heriger returned to the problem that the Jews and Orientals were familiar with in their attempts to calculate Easter.⁷³ The Jewish Passover was, it is true, correctly calculated according to the lunar criteria, but sometimes fell before the Nicaean vernal equinox.⁷⁴ The Orientals, on the other hand, observed an erroneous vernal equinox and according to Heriger celebrated Easter invariably on 27 March, regardless of the day of the week.⁷⁵ He added that according to Augustine, Fulgentius, Johannes Chrysostomos, and even Pliny, Christ was conceived and died on one and the same calendar day.⁷⁶ It was thanks to Pope Victor I (d. 199) that the

⁷¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'sicut contigit in passione Domini, quando feria v advesperascente, et luna xv incipiente, ipsam noctem et sequentem diem habebant pro pascha, sicut dicit evangelista: erat pascha, et azyma post biduum. Sabbatum autem subsequens, non solum propter semetipsum, sed et propter solemnitatem paschalem, quasi duplex festum dicebatur sabbatum sabbatorum'.

⁷² Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Quid autem distet inter pascha et azyma, vel si indifferenter dicatur, sicut apud alium evangelistam: prima autem die azymorum, quando pascha immolari solet, vel quot diebus Judaei antequam nos, vel quot nobiscum celebrent pascha, apud Bedam inventu facile est.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 63.

⁷³ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Liquet igitur quia prius orientales quam ipsi Judaei celebrabant.'

⁷⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Judaei enim, licet de aequinoctio aliquoties errarent, tamen xiiii lunam sequebantur.'

⁷⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: 'Orientales vero, lunaris circuli penitus ignari, aequinoctium autem in viii kalendas Aprilis tenentes, sicut et multi nostrorum, utpote augustinus, fulgentius, Joannes chrysostomus, et ipse plinius, quo etiam die conceptionem Christi et passionem adnotabant, pascha in vi kalendas Aprilis celebrandum praefixerant, quocunque die hebdomadis evenisset, sicut et natale Domini in viii kalendas januarii.' See also pseudo-Theophilus of Caesarea, *Acta synodis Caesariensis*, ch. 1. It is, however, unclear which factors contributed to the change from the original reading of 25 March (*viii kal. apr.*) to 27 March (*vi kal. apr.*), precisely because Heriger was a proponent of the Greek tradition.

⁷⁶ See also Augustine of Hippo, *Quaestiones in Heptateuchum*, 2:90, and pseudo-Chrysostom, *De solstitiis et aequinoctiis*, col. 566. Both of these fragments clearly demonstrate, however, that Heriger must certainly have been familiar with the Latin tradition. We have not been able to trace the references to Fulgentius and Pliny.

Christian Easter was celebrated without exception on a Sunday.⁷⁷ Later the First Council of Nicaea (325) determined that the vernal equinox should be fixed on 21 March and decided as well to follow the nineteen paschal terms given to Pachomius by the angel.⁷⁸ With this last argument, Heriger wished to demonstrate that the existing figural similarity between the equinoxes and the solstices on the one hand and the Conception and death of Christ on the other had come about due to the erroneous Julian equinox (viii kal.).⁷⁹

Table 8

25/3 (viii Kal. Apr.)	Conception of Christ	Vernal equinox
24/6 (viii Kal. Iul.)	Birth of John the Baptist	Summer solstice
24/9 (viii Kal. Oct.)	Conception of John the Baptist	Autumnal equinox
25/12 (viii Kal. Ian.)	Birth of Christ	Winter solstice

In other words: if the more accurate Nicæan calculation reckoning had been used (xi Kal.), then the figural framework would have been different.⁸⁰ With this argument, Heriger ended his historical disquisition on the problem of calculating the equinoxes. He succinctly summed up his conclusion, namely that the truth was to be sought among the Greeks.⁸¹ At the same time Heriger proved to be tolerant on a practical level of ‘dissidents’, namely the proponents of Julian theory (xi kal.).

⁷⁷ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: ‘Victor vero papa romanus, ab angelo per pastorem monitus quocunque die hebdomadis ipsa vi kalendarum Aprilium dies provenisset, in dominicum diem pascha differendum statuit. Et de dominica bene, ut ipse utique quo Dominus resurrexit dies nunquam permutaretur, et ut post aequinoctium semper pascha celebraretur.’ See also Charles W. Jones, *Opera de temporibus*, Medieval Academy of America Publications, 41 (Cambridge, MA, 1943), p. 10.

⁷⁸ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 483: ‘Ut vero post xiiii id est, in iii hebdomada hujus saeculi omnino adhuc aut ignorabatur, aut ne legebatur, donec in nicaena synodo et aequinoctium xii kalend. April. praefixum, et dies paschales, juxta xiiii lunas pachomii, deinceps sunt observati.’ On the paschal terms of Pachomius, see Charles W. Jones, ‘A Legend of St. Pachomius’, *Speculum*, 18 (1943), 198–210.

⁷⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, pp. 483–84: ‘Hoc vero certissime sciendum quod si eo tempore aequinoctia et solstitia in xii kalendarum, sicut modo essent praefixa, nunquam conceptiones et natales beati Joannis et ipsius Christi in viii kalendarum, sed potius in xii essent assignatae.’

⁸⁰ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: ‘Nam qui ipsa aequinoctia in viii kal. putaverunt, ipsi easdem festivitates ibidem assignaverunt, propter illud quod dixit Joannes: illud oportet crescere, me autem minui.’ See also John 3. 30.

⁸¹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: ‘Sed veritas cum Graecis scienda.’

As long as their view did not go against the faith, they would not be entirely shut out.⁸²

Heriger expanded this latter statement by linking it to the controversial council at the abbey of St Basle (991). There Archbishop Arnulf of Reims (d. 1021) was deposed by the Gallican bishops and succeeded by Gerbert of Aurillac, that is, the later Pope Sylvester II. The same Gerbert wrote about these events in 995 in an account of the council. He made use thereby on several occasions of a number of the conciliar decrees of Toledo in order to insure that the deposition was procedurally correct.⁸³ Apparently Heriger disagreed strongly with the arguments put forward by Gerbert and accused him of a lack of tolerance. He even goes so far as to characterize the attitude of his future Pope with respect to Arnulf as a 'recent heresy'.⁸⁴

Finally, Heriger pointed up another computistical difficulty, namely the overlap between Easter Sunday and the Annunciation (25 March). In his view an early date for Easter did not by definition preclude the celebration of the feast of the Annunciation.⁸⁵ Heriger notes that he had devoted a separate tract to this subject.⁸⁶

Heriger's answer to the questions of his pupil Hugo ends here. Heriger was fully aware that his letter was succinct and in some cases all too terse. He attributed this to his poor state of health at that time, which forced him to dictate the letter rather than write it himself.⁸⁷ He further apologized for his less than sophisticated style,

⁸² Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'Consuetudo autem ecclesiarum, si non est contra fidem, nullo modo permutanda, nec eis qui in viii kalend. putaverunt, omnino abrogandum, cum Graecis vero et aegyptiis de xii sentiendum.'

⁸³ Gerbert of Aurillac, *Acta concilii Remensis ad sanctum Basolum*, chs 3, 15, 32–33, 35–39, 44, and 46.

⁸⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'Quod dictum adversus haeresim quae nuper exorta est valet plurimum, domno gerberto illam ex toletano concilio praerogante.'

⁸⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'Nam cum sint v dies a xii kalendis usque ad viii, si dies dominicus paschae, aut sabbatum sanctum, aut parasceven, aut coena Domini praepedierint quominus annuntiatio beatae mariae matris celebrari possit in quolibet ex ipsis v diebus, anticipari valebit.'

⁸⁶ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'et rescriptum nostrum adversus haec, si petieris, impetrare valebis'. Heriger's text has unfortunately been lost.

⁸⁷ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'Haec, frater dilectissime, summatim breviterque quia per memetipsum infirmitate interpellante, et oculorum acie jam caligante, scribere non potui.'

but expressed the hope that its contents were all the more clear because of that.⁸⁸ As an appendix to this letter, Heriger in turn posed seven questions for Hugo to answer. They deal especially with contradictions among a variety of sources concerning the computistical dating of certain events.⁸⁹

Conclusion

In his letter to Hugo, Heriger initially highlights the gospel evidence that clearly reveals the shortcomings of Dionysius's Incarnation era. He also distances himself from Bede, who privileged AD 34 as the year of Christ's Passion. Following this introduction to the problem at hand, Heriger tries to put forward an acceptable alternative. He correctly observes that the Alexandrian sources are much closer, both temporally and geographically, to the early Christian period than Dionysius Exiguus. Without too much circumlocution, Heriger next cuts to the core of his correction, namely the designation of AD 42 as the 'real' year of Christ's Passion (AD 42 = 34 VA). Thus Heriger opts to follow the so-called Greek tradition. Despite his explicit reference to Augustine, he ignores the Latin tradition. He only needed the authority of the latter Church Father to demonstrate that Christ was conceived and died on the same calendar day.

Heriger sought to bolster his preference for the Greek tradition with further examples in which the Greeks proved to be more reliable. First of these is his attempt to demonstrate the superiority of the Nicaean equinox (21 March). Next Heriger establishes a typological link between Creation week and Holy Week by arguing that Christ's Passion could not have occurred on a more appropriate day than the sixth day of Creation (23 March). Heriger took issue with the figural scheme that set the conception and incarnation of both John the Baptist and Jesus Christ on the Julian equinoxes and solstices (viii kal.). He points out that this figural scheme was set up precisely by those who adhered to the Julian theory, in other words at a time when the Nicaean tradition did not yet exist. In Heriger's view, therefore, the figural scheme was in no shape or form proof of the validity of the Julian vernal equinox (25 March). It is striking, though in no way contradictory, how in the first

⁸⁸ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484: 'Minus de leporis urbanitate curavi, sciens eos qui ante nos de artibus scripsere, ut tantum intelligerentur elaborasse eloquentiam vero omnino neglexisse.'

⁸⁹ This appendix is of insufficient relevance to this study, but does present a very interesting picture of Heriger's pedagogical methodology at Lobbes.

argument Heriger avails himself of a figural connection between the week of Creation and Holy Week, yet in the following argument he dismantles a similarly figural scheme by pointing out that it could be traced to a faulty origin.

Here ends Heriger's answer to his pupil Hugo's specific question concerning the discrepancy between Dionysius Exiguus and Bede. Heriger subsequently composes a plea for tolerance with regard to those who hold a different opinion. As long as those views do not go against the tenets of the faith, it is unnecessary to discipline them all too harshly. Like his tract on the debate surrounding the Eucharist, this letter clearly demonstrates how much importance Heriger attached to the pursuit of compromise.⁹⁰

⁹⁰ In his tract on the Eucharist, Heriger created a possible synthesis between the actual presence of Christ (*praesentia realis*) and the symbolic presence of Christ: Günter Glauche, 'Neue Beobachtungen zur Überlieferung von Exaggeratio, Dicta Herigeri und verwandten Eucharistietexten', *Tradition und Wertung: Festschrift für Franz Brunhölzl zum 65. Geburtstag* (1989), 231–44.

ABBO OF FLEURY (D. 1004)

The Intellectual Pinnacle of Fleury

The most important information concerning Abbo's life is to be found in his letters and in the *Vita Abbonis*, written by his pupil Aimoin of Fleury (d. c. 1010).¹ Abbo was born c. 945 in or near Orléans as the son of Lactus and Ermengardis, a freeborn couple who were not, however, members of the nobility. He was given as an oblate to the nearby abbey of St-Benoît-sur-Loire at Fleury, where two relatives on his mother's side already resided.² At Fleury Abbo received an education in grammar, dialectics, and arithmetic and subsequently travelled to Paris (St-Germain-des-Près) and Reims in order to study philosophy and astronomy.³ Both of these centres were still under the considerable influence of the important scholar Remigius of Auxerre (d. 908). Following his return to Fleury, Abbo received paid instruction in music, and he completed the remaining liberal arts, namely rhetoric and geometry. He was also appointed armarius, that is, the person responsible for the scriptorium and library. Abbo was appointed scholaster of this important abbey c. 965.

¹ Aimoin of Fleury, *Vita sancti Abbonis*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 139 (Paris, 1853), cols 387–414. On Abbo's life, see Pierre Riché, *Abbon de Fleury: un moine savant et combatif (vers 950–1004)* (Turnhout, 2004), p. 311; and Elisabeth Dachowski, *First among Abbots: The Career of Abbo of Fleury* (Washington, DC, 2008), p. 299.

² Aimoin of Fleury, *Vita sancti Abbonis*, ch. 1.

³ Aimoin of Fleury, *Vita sancti Abbonis*, p. 390: 'sed non quantum cupierat'.

In 985 Oylbold (d. 987) was installed as the new Abbot of Fleury by the then King Lotharius (d. 986).⁴ At about the same time, a delegation had arrived from England, led by Oswald, then Archbishop of York (d. 992).⁵ Oswald was looking for an appropriate person to promulgate monastic reform in England. The controversial choice of Oylbold as abbot may explain why the learned Abbo accepted this invitation and went to teach for two years at the rather humble abbey school of Ramsey (985–87). Abbo took this task seriously. He supported the monastic reforms of Archbishop Dunstan of Canterbury (d. 988), was consecrated priest by him, and among other things visited the abbey of Bury St Edmunds. Of equal importance is the scientific knowledge that Abbo brought with him from Fleury in the form of a number of important manuscripts.⁶

At Oylbold's emphatic request Abbo was recalled to Fleury in 987. In the relevant letter it is absolutely clear that the monks themselves wanted Abbo back, for their famous abbey school stood on the brink of collapse. The pressure from his monks must have been considerable indeed, for Oylbold was even willing temporarily to lay down his abbacy in favour of Abbo. But upon his return to Fleury, Abbo had to contend with an anonymous opponent, who moreover enjoyed the support of the Carolingian royal house. Once again it looked as if Abbo would come up empty handed, but help arrived from an unexpected quarter. The Carolingian dynasty died out after the death of Louis V (d. 987) and his successor, Hugo Capet (d. 996), refused to recognize Abbo's anonymous opponent. Abbo was ultimately elected by the monks of Fleury as their new abbot in 988.

It was not long before Abbo became ensnared in a conflict between papal sympathizers on the one hand and royal supporters on the other. The immediate impetus was the important episcopal see of Reims, for which the King and the Pope had each

⁴ Mostert also suspects that Abbo was a candidate for the vacant abbacy, but did not enjoy the necessary support of the Carolingian royal house: Marco Mostert, 'Le séjour d'Abbon de Fleury à Ramsey', *Bibliothèque de l'École des chartes*, 144 (1986), 199–208 (p. 205).

⁵ Oswald himself had received his intellectual training at Fleury and returned to the British Isles in 958. Ten years later he founded the abbey of Ramsey (968): Cyril Hart, 'The Foundation of Ramsey Abbey', *Revue bénédictine*, 104 (1994), 295–327 (p. 296).

⁶ Among others, Abbo brought London, British Library, MS Harley 647 (c. 830) and London, British Library, MS Harley 2506 (c. 1000) to Ramsey and was responsible for the introduction of Hrabanus Maurus's *De computo* to England: Marco Mostert, *The Library of Fleury: A Provisional List of Manuscripts*, *Medieval Studies and Sources*, 3 (Hilversum, 1989), pp. 106–07, and Wesley M. Stevens, 'Introduction to Hrabanus "De computo liber"', in Hrabanus Maurus, *De computo*, ed. by Stevens, *Corpus Christianorum Continuatio Mediaevalis*, 44 (Turnhout, 1979), pp. 165–96 (p. 173, n. 35).

put forward their own candidate following the death of Adalbert of Reims (d. 989). Abbo supported the papal favorite, Arnulf of Reims (d. 1021), who ultimately prevailed over his opponent, Gerbert of Aurillac. Hugo Capet responded, however, by imprisoning the rebellious Arnulf in 991. In that same year the Gallican bishops decided at the synod of St Basil to depose Arnulf and to replace him with the royal sympathizer Gerbert. This manoeuvre is not very surprising, in as much as the Gallican bishops were feudally bound to the Frankish king. Abbo of Fleury, however, disputed this decision by positing that it had been taken without the approval of Rome. In so doing he raised a more general question, namely that of secular influence in papal affairs. This tense situation escalated in 993. A number of monks were accused of fiscal mismanagement and they were ordered to appear before an episcopal synod led by Gerbert of Aurillac. The rebellious monks were defended by Abbo of Fleury, who was ultimately accused himself of rebellion. The situation took a different turn, however, when King Robert II (d. 1031) wished to have his marriage to his niece, Bertha of Blois, annulled. For this he needed papal dispensation, and so he sent Abbo of Fleury to Rome in 997. The Capetian king received the desired dispensation on the condition that Arnulf of Reims be reinstated to his episcopal rank. Gerbert was not convicted and he voluntarily abdicated his episcopal office.

Abbo spent the last years of his life working in particular on the reorganization of dependent monasteries and priories. Thus he put down rebellions at Marmoutier (998), Chartres (1002), and Micy (1004), and, together with a number of other monks, he conducted an inspection of the priory of La Réole in the region of Gasconne. Just as he was dictating a number of computistical rules, however, he became aware of an altercation outside his workspace, becoming louder by the minute. Ultimately he found himself in the middle of a fight between his own Fleurian monks and the local Gasconese. Abbo was mortally wounded in the upper left arm. In this peculiar fashion he, one of the most important figures of his generation, died on 13 November 1004.

Abbo is known to this day for his intellectual powers and moreover because he inspired numerous pupils who were later to occupy important positions in the Church: Gauzlinus was Abbo's successor at Fleury and Archbishop of Bourges, Bernardus became Bishop of Cahors, Berno became Abbot of Reichenau, Constantinus and Lethaldus became abbots at Micy, Odolric became abbot at Limoges, Herveus became thesaurius of St Martin's abbey at Tours, and Thierry went to Amorbach. Moreover, Abbo's scientific works are characterized by a degree of originality that should not be underestimated. He was, for example, together with his political rival Gerbert of Aurillac, the first author to study anew Boethius's works on logic. Gerbert taught these works during his tenure as scholaster at

Reims, and Abbo subsequently composed a commentary to replace the second — lost — volume of Boethius's *Organon*. The result was his treatise on logic entitled *De syllogismis hypotheticis*, in which Abbo expanded Boethius's work by that name.⁷ The influence of this syllogistic reasoning is also to be detected in *De ratione spere* and many of his other works. Already in 978 he had completed his astronomical treatise *De ratione spere* on the position of the planets at the moment of Creation, and the duration of their respective orbits.⁸ At about the same time Abbo also wrote a mathematical treatise on the art of calculation using the abacus. His knowledge of the abacus was based either on ancient manuscripts or on (in)direct contact with the Arab world.⁹

Abbo's fascination with the ontological nature of numbers resulted as well in a commentary on the *Calculus* by Victorius of Aquitaine (before 985).¹⁰ He was searching for the underlying rational structures and tried to link this metaphysical component with theological and cosmological number theories. After all, all diversity and multiplicity came forth from the One. For Abbo the seven liberal arts were themselves components of a single intelligible reality that could be traced directly to God's Creation.

During his stay at Ramsey, Abbo tried to teach his pupils good Latin. To this end he composed a number of *Quaestiones grammaticales*, which to this day constitute important witnesses to the spoken Latin of his time.¹¹ At Ramsey he also wrote a *Passio sancti Eadmundi* and the astronomical tract *De duplici signorum ortu vel occasu* in which he provided commentary on difficult passages in his previously authored *De ratione spere* (978).¹²

⁷ Abbo of Fleury, *De syllogismis hypotheticis*, ed. by Franz Schupp, *Studien und Texte zur Geistesgeschichte des Mittelalters*, 56 (Leiden, 1997), pp. 1–171.

⁸ Abbo of Fleury, *De ratione spere*, ed. by Ron B. Thomson, *International Archives of the History of Ideas*, 110 (Dordrecht, 1985), pp. 120–33. See also David Juste, 'Neither Observation nor Astronomical Tables: An Alternative Way of Computing the Planetary Longitudes in the Early Western Middle Ages', in *Studies in the History of the Exact Sciences in Honour of David Pingree*, ed. by Charles Burnett and others, *Islamic Philosophy, Theology and Science: Text and Studies*, 54 (Leiden, 2004), pp. 181–220.

⁹ Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', p. 138.

¹⁰ Abbo of Fleury, *Commentarium in calculum Victorii*, ed. by Alison M. Peden, *Auctores Britannici Medii Aevi*, 15 (Oxford, 2003), pp. 63–131.

¹¹ Abbo of Fleury, *Quaestiones grammaticales*, ed. by Anita Guerreau-Jalabert, *Auteurs latins du Moyen Âge* (Paris, 1982), pp. 195–279.

¹² Abbo of Fleury, *De duplici signorum ortu vel occasu*, ed. by Ron B. Thomson, *Mediaeval Studies*, 50 (Toronto, 1988), p. 673.

Following his election to the abbacy in 988, the power struggle in Reims provided the direct impetus for the *Liber apologeticus* (994) and for his *Canones* (after 994). In the latter work he formulated both the rights and the responsibilities of monks, bishops, and kings. In 997 Abbo himself forged a diploma from Pope Gregory IV (d. 844), in which Fleury was granted a more independent status than the secular canons. The rights in this forged charter were confirmed without objection by Gregory V (d. 999) in a papal privilege.¹³ It is also in this period of his abbacy that Abbo formulated his criticism of Dionysius's Incarnation era.

Abbo's Correction of the Christian Era

Introduction

As far as computistical studies are concerned, the abbey of Fleury-sur-Loire captured the leading role from Auxerre at the end of the tenth century. In 978 Abbo of Fleury reworked Helperic's *Liber de computo* (before 900).¹⁴ Presumably this reworking served as a prelude to the composition of his own *Computus*.¹⁵ For the first portion of his *Computus* (982) Abbo borrowed his lunar tables for the most part from the Carolingian *Liber calculationis* (818).¹⁶ He provided these tables

¹³ Marco Mostert, 'Die Urkundenfälschungen Abbos von Fleury', in *Fälschungen im Mittelalter*, ed. by Jasper Detlev, Monumenta Germaniae Historica, Schriften, 33 (Hannover, 1988), pp. 287–318 (p. 309).

¹⁴ The most important manuscript of the Abbonian version of Helperic's *Liber de computo* is Paris, Bibliothèque nationale de France, MS lat. 7518, fols 29^v–37^r (s. x^{ex}). In Chapter 23 the *annus praesens* is changed to 978: Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', pp. 148–49.

¹⁵ On Abbo's *Computus*, see Nadja Germann, *De temporum ratione: Quadrivium und Gotteserkenntnis am Beispiel Abbos von Fleury und Hermanns von Reichenau* (Leiden, 2006), pp. 106–76; and Nadja Germann, 'À la recherche de la structure du temps: Abbon de Fleury et le comput', in *Abbon, un abbé de l'an Mil*, ed. by Annie Dufour and Gillette Labory, Bibliothèque d'histoire culturelle du Moyen Âge, 6 (Turnhout, 2008), pp. 153–76. An early series of tables and commentaries are to be found in Berne, Burgerbibliothek, MS 250, fols 12^r–26^r (s. x^{ex}). The most complete textual version is, however, Berlin, Staatsbibliothek Preussischer Kulturbesitz, MS Phill. 1833, fols 23^r–53^v (Fleury, s. x^{ex}/s. xiⁱⁿ). The most important descendant of the now-lost *Computus* manuscript brought by Abbo to Ramsey in 985 is Oxford, St John's College, MS 117, fols 16^r–34^v (Thorney, 1110). Nadja Germann, David Juste, Barbara Obrist, and myself are preparing a critical edition of Abbo's *Computus* in collaboration with the Institut de Recherche et d'Histoire des Textes in Paris.

¹⁶ The *Liber calculationis* was composed at the episcopal court of Arn of Salzburg (d. 821) in 818, incorporating a great deal of attention to accompanying commentaries, figures, and tables. See

with the so-called Golden Number, that is, a number between one and nineteen to indicate the year within a nineteen-year cycle.¹⁷ Abbo's most original contribution in this first part was, however, undoubtedly his *Ephemerida*, an ingenious table that can be read not only as a computistical poem, but also as a lunar calendar.¹⁸

Only after his election to the abbacy in 988 did Abbo formulate, in four different phases, his criticism of Dionysius's Incarnation era. For each phase we may distinguish a commentary and one or more tables.

Table 9

		A	B	C	D	E	F	G
post-988	<i>Praefatio ad cyclos paschales</i> ¹⁹	x			x			
	<i>Cycli secundum ordinem annorum</i> (535–72)	x		x	x			
1000	<i>Prologus de ciclo magno paschae</i>		x					
	<i>Laterculus anterior</i> (532–1595)		x					
1003	<i>Epistola prima ad Geraldum et Vitalem</i> ²⁰	x			x		x	*
	<i>Cycli secundum fidem historiographorum</i> (515–71)	x			x	*	x	
1004	<i>Epistola secunda ad Geraldum et Vitalem</i>	x	*		*		x	
	<i>Laterculus posterior</i> (988–1519)	x			x			

(x = complete version; * = fragmentary version)

A = Berlin, MS Phill. 1833; B = Berne, MS 306; C = Leiden, MS Scaliger 49; D = Montpellier, MS 48; E = Paris, BnF, MS lat. 5543; F = Vatican City, BaV, MS Reg. lat. 1281; G = Vatican City, BaV, MS Reg. lat. 1573

also Arno Borst, 'Alkuin und die Enzyklopädie von 809', in *Science in Western and Eastern Civilization in Carolingian Times*, ed. by Paul L. Butzer and Dietrich Lohrmann (Basel, 1993), pp. 53–78 (pp. 73–75).

¹⁷ On the genesis of the Golden Number, see André Van de Vyver, 'Hucbald de Saint-Amand, écolâtre, et l'invention du nombre d'or', in *Mélanges August Pelzer: études d'histoire littéraire et doctrinale de la Scholastique médiévale offertes à Monseigneur Auguste Pelzer à l'occasion de son soixante-dixième anniversaire*, Recueil de travaux d'histoire et de philologie, series 3, 26 (Leuven, 1947), pp. 61–79.

¹⁸ Michael Lapidge and Peter S. Baker, 'More Acrostic Verse by Abbo of Fleury', *Journal of Medieval Latin*, 7 (1997), 1–27.

¹⁹ Abbo's *Praefatio* was first published by Johannes of Bronckhorst (Cologne, 1537) and later reproduced as a part of Bede's chronological oeuvre by Hervagius (Basel, 1563 and Cologne, 1612 and 1688) and Migne (Paris, 1850 and 1853). For a more recent edition, see Abbo of Fleury, *Praefatio ad cyclos paschales*, ed. by Alfred Cordoliani, *Revue d'histoire ecclésiastique*, 44 (Leuven, 1949), pp. 474–76.

²⁰ The earliest edition was published in 1849, based on the less accurate Chartres, Bibliothèque municipale, MS 75, fol. 124 (s. XI), namely Abbo of Fleury, *Epistola prima ad Geraldum et Vitalem*,

The First Phase (after 988 / before 1000)

'Praefatio ad cyclos paschales'

Abbo began his preface with a number of chronological facts about the ninety-five-year Dionysian cycle, which by Bede's day had been expanded to a complete 532-year cycle.²¹ He remarked with great emphasis upon the complete cyclical nature of this 532-year luni-solar cycle, namely as the product of a nineteen-year lunar cycle and a twenty-eight-year solar cycle.²² By means of this luni-solar functionality we are able to locate the chronological data concerning the date of Christ's Birth (AD 1) in 533 and 1065, as well.²³ Abbo correctly maintained that

ed. by Pierre Varin, in 'Lettre critique d'Abbon de Fleury sur les cycles dionysiaques', *Bulletin du comité historique des monuments écrits de l'histoire de France: histoire, science, lettres*, 1 (1849), 115–28 (pp. 117–27). One century later Cordoliani published the same inadequate edition: Abbo of Fleury, *Epistola prima ad Geraldum et Vitalum*, ed. by Alfred Cordoliani, in 'Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon sur l'ère de l'Incarnation de Denys le Petit', *Revue d'histoire ecclésiastique*, 44 (1949), 463–87 (pp. 476–80).

²¹ Berlin, MS Phill. 1833, fol. 45^r: 'Dyonisius abbas genere romanus paschales circulos mira breuitate composuit, utpote utriusque linguae peritia insignis. Quos quidem ut ipse ait ab anno ccxlviii Diocletiani tyranni potius quam principis inchoavit, sed incarnationis dominicae magis quam eiusdem tyranni memoriam agere deliberans, quinque decemnovalis circulos aedidit, quos annis Christi annotavit. Si quidem sanctus Cyrillus usque ad ipsius Dyonisii tempora paschalem observantiam quinque decemnovalibus circulis comprehenderat, quorum quintum praefatus Dyonisius suis quinque anteposuit, ac sic incipiens ab anno dominicae incarnationis dxxxii, in dcxxvi sua dispositione perduxit. Sed quoniam hi exacti redire in se nullo modo poterant qui a sancto Cyrillo xcvi annis comprehensi fuerant, sicut nec illi quos eodem spacio temporum ipse ordinaverat, numquam enim nisi finito magno anno solis lunaeque compotus totus ex integro sine aliqua confusione repetitur ut idem fatetur, idcirco praecipit ut peractis sex annis qui de quinto circulo beati Cyrilli tunc temporis supererant, eosdem sobrius lector non repetat, sed a suo primo qui dxxxii annis Domini praetitulatur ordiendum non ignoret. Cuius quinque decemnovalibus circulis xxiii alii adiecti magnum annum compleverunt, qui dxxxii annis perficitur xxviii constans circulis decemnovalibus.'

²² Berlin, MS Phill. 1833, fol. 45^{r-v}: 'Qui annus propterea in se sua per vestigia sine ulla confusione revolvitur, quoniam circulus solaris xxviii et lunaris xviii annis peragitur, qui dum eo tenore quo pariter coepti sunt finiuntur. Magnus annus quingentorum xxx duorum annorum iteratur, ut paschalis ratio ad solem vel lunam pertinens inerrato repetatur. Sicque fit ut dum in eo sunt xxviii cicli xviii sive lunares, sint etiam in ipso xviii cicli solares, quorum solaris nono anno sui cicli in his circulis Dyonisii incipit et in octavo desinit. Decemnovalis vero manifestus in ipsis totam lunae rationem regit. Quapropter decies novies xxviii seu vices octies xviii multiplicati, in dxxxii certum est procul dubio exundari, quo numero annorum conficitur ut dictum est magnus annus qui paschalis dicitur.'

²³ Berlin, MS Phill. 1833, fol. 45^r: 'Nam et in epactis et in concurrentibus sive ciclis decemnovali vel lunari, necnon termino paschali, ac dominica paschae cum luna ipsius diei, qualis fuit

the first 532-year cycle (1 BC–AD 531) had already been completed and that the second 532-year cycle (AD 532–1063) was approaching completion. He was the first author to add a complete, third 532-year cycle (AD 1064–1595) to this, though only God knew how long it would last.²⁴

Following this mostly general introduction to the 532-year luni-solar cycle, Abbo focused his attention on the date of Christ's Passion according to Dionysius (AD 34).²⁵ By collating the concurrent and the Paschal regular, Abbo was able to determine that the Paschal term (luna xiv) fell on a Sunday. This determination conflicted with the gospel tradition, which held that Christ was betrayed on a Thursday (luna xiv) and died on a Friday (luna xv). In so doing, Abbo set the 532-year Dionysian cycle in direct opposition to the *fides catholica*. He moreover blamed his illustrious predecessor, Bede, for failing to cast any light on this 'obscure' incongruity.²⁶ The only indication given by Bede to his readers was after all that the gospel data were to be preferred to the Dionysian era.²⁷

Moreover, Abbo suspected that Dionysius Exiguus had to some extent based himself on the Greek tradition, which held that Christ was betrayed on 22 March (luna xiv).²⁸ He deduced this from the fact that, according to Dionysius, the Paschal term in the year of Christ's Passion (AD 34) was 21 March (luna xiv), and thus differed by only one day from the Greek tradition. Abbo could not, however, get around the

dxxxii dominicae incarnationis annus, talis erit mlxiii, qualisque fuit ipsius incarnati Verbi annus primus et ab eo dxxxiii, talis erit etiam mlxv.' The manuscript reads, however, *mcxv* (1115), which appears to be a logical error for the expected *mlxv* (1065). This was later changed, in superscript, to *mdcxv* (1615), which is in fact much less logical. The Montpellier manuscript does provide the correct number: Montpellier, Bibliothèque interuniversitaire, MS Section Médecine 48, fol. 10^r.

²⁴ Berlin, MS Phill. 1833, fol. 45^v: 'et deinceps pari ordine usque ad finem triplici annorum Domini serie ubique hanc concordiam servante, quarum prima omnino praeteriit, secunda ac si secundus magnus annus adhuc imminet, de tertia quantum futurum sit quam tamen adhibui in his circulis Deus solus novit'.

²⁵ Berlin, MS Phill. 1833, fol. 45^v: 'Cum haec ita sint quaeritur de anno dominicae passionis qui a nativitate xxxiiii terminum paschae, xiiii scilicet lunam qua Deus ad immolandum traditur, dominica facit occurrere per concurrentes et regulares eiusdem lineae, licet catholica fides habeat post peractam coenam feria v traditum, et xv luna feria vi crucifixum.'

²⁶ Berlin, MS Phill. 1833, fol. 45^v: 'In cuius quaestionis obscuritate dominus Beda plurimum obversatus nihil lucis infudit, nisi tantum quod evangeliorum fidem huius viri [= Dionysii Exigui] auctoritati praetulit, qui beatum Theophilum quodammodo videtur secutus qui ait Dominum xi kal. apr. traditum, licet unum superadiciat praedictus vir, et xii kal. apr. xiiii lunam tunc fuisse scribit.'

²⁷ Beda Venerabilis, *De temporum ratione liber*, ch. 47.

²⁸ See the Introduction, the subsection on 'The Greek Tradition (Resurrection = 25 March)' under 'The Dates of Christ's Birth and Passion: The Search for the Year of Christ's Passion'.

fact that according to this reckoning Dionysius Exiguus — contrary to the Roman and Greek traditions — would have maintained that Christ had died on luna xix and not on luna xv.²⁹ Because later generations adopted this incongruity, Abbo concluded that all past Church communities had been susceptible to this error.³⁰

Table 10

	<i>Maundy Thursday</i> (<i>Last Supper</i>)	<i>Good Friday</i> (<i>Crucifixion</i>)	<i>Easter Sunday</i> (<i>Resurrection</i>)
Latin tradition	Thu. 24/3 luna xiv	Fri. 25/3 luna xv	Sun. 27/3 luna xvii
Greek tradition	Thu. 22/3 luna xiv	Fri. 23/3 luna xv	Sun. 25/3 luna xvii
Dionysius Exiguus	Sun. 21/3 luna xiv	Fri. 26/3 luna xix	Sun. 28/3 luna xxi

It is striking that at this juncture in his argument Abbo took up an apparently entirely new topic, namely the date of Benedict of Nursia's death (d. 547).³¹ He maintained for the time being that St Benedict must still have been alive in 529.³² He based this supposition on a lost tract by Victor of Capua (d. 554), as well as on the *Historia romana* of Paul the Deacon (d. 799?).³³ Abbo found an important new fact in the *Vita sancti Mauri abbatis Glannafoliensis*, written by one of Benedict's own students, namely Faustus of Monte Cassino (d. 620).³⁴ Therein was clearly to

²⁹ Berlin, MS Phill. 1833, fol. 45^v: 'Qui etiam in eo ab omnibus aecclesiasticis doctoribus discrepat, quod Dominum xviii luna crucifixum demonstrat. Nam Theophilus sicut et alii xv luna crucifixum astruit, dum viii kal. apr. refert eum resurrexisse a mortuis, post multa quae tractaverat cum suis coepiscopis de origine mundi.' The 532-year Dionysian cycle does indeed identify 28 March of the year AD 34 (luna xxi) as Easter Sunday. Consequently in that same year Good Friday fell on 26 March (luna xix).

³⁰ Berlin, MS Phill. 1833, fol. 45^v: 'Igitur tanti viri hoc unum peccatum ita indulserunt posterio ut eum sequantur in omnibus aecclesiis.'

³¹ Berlin, MS Phill. 1833, fol. 45^v: 'Sed mihi aliud occurrit, quod non debeo tradere oblivioni.'

³² Berlin, MS Phill. 1833, fol. 45^v: 'Anno ab incarnatione Domini dxxviii imperante Iustino seniore, sanctissimus monachorum pater Benedictus in Italia virtutibus claruit, ut testatur Victor Capuanus episcopus, seu Paulus Cassiniensis monachus, huiusque Dyonsii contemporalis extitit.'

³³ Paul the Deacon, *Historiae Romanae libri XI–XVI*, ed. by Hans Droysen, Monumenta Germaniae Historica, Auctores antiquissimi, 2 (Berlin, 1879), pp. 185–224, 1:26. Victor of Capua wrote a partially preserved *Libellus de cyclo paschali* and a now-lost *De equinoctio*: Masako Ohashi, 'Victor of Capua's *De aequinoctio*: Criticism of the Identification of the Work Quoted in Bede's Letter to Wicthed by Charles W. Jones', *Kirisutokyo-Shigaku: Journal of History of Christianity*, 53 (1999), 123–36.

³⁴ Berlin, MS Phill. 1833, fol. 45^v: 'Qui videlicet Benedictus pater sabbato sancto paschae ex hac vita migravit xii kal. apr. sicut legitur in gestis veracissimis.' In reality, however, this concerns a ninth-century saint's life by Odo of Glanfeuil. That the description *gesta veracissima* refers to this

be read that Benedict had died on Easter Saturday, 21 March.³⁵ This chronological fact unambiguously implied that in the year of Benedict's death Easter Sunday had been celebrated on 22 March (luna xv), the earliest possible date for Easter in a 532-year Dionysian cycle.

Abbo, too, grasped the exceptionally early nature of this Easter Saturday, which according to his reckoning only occurred in the fourth, twenty-second, and twenty-seventh nineteen-year cycles.³⁶ More particularly he was concerned with the sixteenth year in these nineteen-year cycles, which corresponded to the years 604 (fourth), 414 (twenty-second) and 509 (twenty-seventh).³⁷ Abbo correctly observed that the two latter possibilities did not apply, because Benedict was still living in 529.³⁸ But the first possibility did not apply, either, given that Benedict's biographer, Gregory the Great (d. 604) died in about the same year.³⁹ Subsequently, and in veiled terms, Abbo indicts the one responsible for constructing this 532-year luni-solar cycle, namely Dionysius Exiguus.⁴⁰

Vita sancti Mauri is demonstrated by Abbo's *Epistola prima ad Geraldum et Vitalem* (1003), in which he identifies this source more specifically; see below, the section on 'The Third Phase (1003): *Epistola prima ad Geraldum et Vitalem*'.

³⁵ Odo of Glanfeuil, *Vita sancti Mauri Glannafoliensis*, ed. by Johannes Bollandus and others, *Acta Sanctorum*, Jan. 2 (Brussels, 1863), pp. 321–32 (p. 327): 'Noctem vero illam, quae duodecimo Kalendas Aprilis habebatur, et qua sacratissimum vigiliarum Paschae illucescebat sabbatum, tam beatissimus Maurus ac nos qui cumeo ibamus, quam S. Romanus cum aliquibus discipulis suis, jejuni pervigilem duximus, unusquisque nostrum secreto apud se, ut in illis diebus in Ecclesia Romana mox erat, psalmos et orationum preces devote pro exitu ejusdem Patri nostri Deo dilectissimi Benedicti consummantes.'

³⁶ Berlin, MS Phill. 1833, fol. 45^v: 'Requisitus vero talis annus in circulis saepius nominandi Dyonisii, in quo sabbatum sanctum contingat praedictis kalendis tercio in toto magno anno inveniri poterit, in tribus scilicet tantum xviii ciclis, id est iiii, xxii et xxvii.' Abbo actually refers here to three future nineteen-year cycles, namely the fourth (1121–39), the twenty-second (1463–81), and the twenty-seventh (1558–76) nineteen-year cycles in the third 532-year cycle (1064–1595).

³⁷ Abbo forgot, however, a fourth possibility, namely 319 (seventeenth nineteen-year cycle). This omission was corrected in Montpellier, MS Section Médecine 48, fol. 10^v.

³⁸ Berlin, MS Phill. 1833, fol. 45^v: 'Sed dum Benedictus pater post annos Domini dxxviii Cassini miraculis vivens coruscavit, constat quod nec xxii nec xxvii ciclo ex hoc mundo decessit.'

³⁹ Berlin, MS Phill. 1833, fol. 45^v: 'Quia vero eius vitae mirabilis relator papa Gregorius anno ab incarnatione Domini dcv obiit, certum est quod nec quarto ciclo ex huius vitae aerumnis moriens transiit, quippe eius monasterium a Langobardis eo mortuo iam fuerat perasum.' Abbo erroneously lists 605 as the year of the death of Gregory the Great, whose *Vita sancti Benedicti* is to be equated with the second book of his *Dialogi* (593/94).

⁴⁰ Berlin, MS Phill. 1833, fol. 45^v: 'Qua calumnia impulsus discutere coepi, quid faceret controversiam huiusmodi, et primum de annis Domini ad chronicorum dicta me contuli, Eusebii

The irreconcilable disparity between, on the one hand, the reliable facts of 'Faustus of Monte Cassino', Victor of Capua, and Paul the Deacon and, on the other, the incontrovertible luni-solar functionality of a 532-year Dionysian cycle prompted Abbo to pursue the issue further.⁴¹ He did this using a purely chronological approach, compiling the years from the Birth of Christ to the first regnal year of Diocletian based on the *Chronicon* by Eusebius and Jerome. He did not in the least doubt that 248 years were to be counted from the first regnal year of Diocletian to the first year of a 532-year Dionysian cycle. Abbo correctly reported that according to this chronicle the Birth of Christ was dated to the third year of the 194th Olympiad (194/3), and the beginning of Diocletian's rule to the second year of the 266th Olympiad (266/2).⁴² From the date of Christ's Birth (194/3 = AD 1) to Diocletian's first regnal year (266/2 = AD 288) there were not, however, 284 years, but rather 287. Consequently Abbo counted not 532 years, but 535 from the date of Christ's Birth to the first year of a 532-year Dionysian cycle (287 + 248 = 535).⁴³ Thus, based on this reckoning according to Olympiads in the Eusebian-Jeromian chronicle, Abbo applied a correction of three years to Dionysius's Incarnation era (AD 532 = 535 VA).

Finally, Abbo formulated the most important results of his analysis. First, he very cautiously posited that the date of Christ's Passion could only have fallen in the thirteenth year of a nineteen-year cycle (13/19), because this was the first year

maxime Cesariensis et Ieronimi divinae legis interpretis, ut quot anni essent ab incarnatione Christi usque ad imperium Diocletiani comprehenderem, quoniam inde usque ad primum annum ciclorum Dyonisii cclxxxviii deprehendissem.'

⁴¹ Berlin, MS Phill. 1833, fol. 45^v: 'Quare nisi summa fides gestorum esset, praelibatus ciclicus de utriusque Domini scilicet ac servi transitu calumniam induceret.' Translated literally it reads 'And therefore, if we did not have the greatest faith in the *gesta*, then the aforementioned cycle would bring a false charge concerning the deaths of both Christ and Benedict.' The *irrealis* trope, however, demonstrates that Abbo did indeed trust the *Vita sancti Mauri*, in which case the 'false charge' should instead be read as a 'true charge' against Dionysius Exiguus.

⁴² Berlin, MS Phill. 1833, fol. 45^v: 'Instans ergo diutius ab unius nativitate usque ad alterius principatum, comperi spatium cclxxxvi vel potius cclxxxvii annorum quoniam Christus natus est tercio anno centesimae nonagesimae quartae olimpiadis, et Diocletianus imperium usurpavit secundo anno ducentesimae sexagesimae sextae rursus olimpiadis. Cum ergo olimpiades lxxi in medio transierint ex quibus cclxxxiii fiunt anni, ex duabus extremis olimpiadibus duo sive tres anni colliguntur.' See also Eusebius and Jerome, *Chronicon*, Olymp. 194/3 and 266/2.

⁴³ Berlin, MS Phill. 1833, fol. 45^v: 'Assumpti vero in unum anni ab incarnatione Domini omnes pariter usque ad primum ciclorum Dyonisii qui fuerunt ante vel post principatum Diocletiani fiunt collecti undique dxxxiii vel magis dxxxv.'

of a cycle in which the Paschal term (luna xiv) fell on 24 March, as prescribed by the Latin tradition.⁴⁴ Second, the date of Benedict's death could only be traced to the sixteenth year of a nineteen-year cycle (16/19), because this was the only year on which the Paschal term (luna xiv) fell on 21 March.⁴⁵ Abbo provided even more computistical information. The date of Christ's Passion had a concurrent 5 and a regular 7, and the date of Benedict's death contained a concurrent 3 and a regular 4.⁴⁶ Using Bede's *De temporum ratione*, which explains how one may calculate the concurrent of any given year, he moreover concluded that 497 years had passed from the Passion of Christ to Benedict's death.⁴⁷

And yet Abbo did not go so far as to connect these chronological data to concrete dates. He did, however, levy yet another accusation at Bede, who had not used his own formula to calculate the concurrent in this important problem.⁴⁸ Abbo's criticism of Bede is unexpectedly harsh when he remarks that Bede had handed off the solution of a number of computistical sticking points to later generations of computists.⁴⁹ Abbo now became more confident and referred to the two nineteen-year cycles that he himself had added as a necessary correction of a 532-year Dionysian cycle.⁵⁰ He went on to assert that his corrections were applicable to the

⁴⁴ Berlin, MS Phill. 1833, fol. 45^v: 'Haec dicens non praeiudico nec dampno aliorum sententias, sed ex autenticis libris quod verum est investigans, qui iuxta fidem Niceni concilii assero quod nullus annus alicuius cycli xviii dominicae passioni ac resurrectioni competiti, nisi xiii habens xiii lunam viii kal. apr.'

⁴⁵ Berlin, MS Phill. 1833, fol. 45^v: 'Annus quoque talis qualis quaeritur in transitu patris Benedicti, numquam evenit nisi xvi anno eiusdem cycli, habente xiii lunam xii kal. apr.'

⁴⁶ Berlin, MS Phill. 1833, fol. 45^v: 'Ut vero ille terminus feria v contingat concurrentes v regularibus vii coeunt, et ut iste sabbato sancto eveniat, concurrentes iii cum regularibus iiii produnt.'

⁴⁷ Berlin, MS Phill. 1833, fol. 45^v: 'Transierunt autem a passione Domini usque ad transitum sancti patris Benedicti ccccxcvii anni quibus divisus per xxx et tricesima parte geminata, ad noticiam venit quod praeter tertium nullus concurrens esse potuerit anno ccccxcvii a passione Domini.' See also Bede Venerabilis, *De temporum ratione liber*, ch. 55.

⁴⁸ Berlin, MS Phill. 1833, fol. 45^v: 'Quam divisionis regulam qui plenius nosse desiderat lv capitulum domini Bedae dereditu concurrentium legat, quo idem sanctus presbyter in circulatorum suorum adiectione debuit advertere unde potuisset alterius negligentiam cavere.'

⁴⁹ Berlin, MS Phill. 1833, fol. 45^v: 'Quam etsi detegit, solvendam posterioribus relinquit, qui nil calculi eum putant latere, et ob hoc tanti faciunt eius auctoritatem tot labentibus annis servatam ut vix corrigi possit plurimis obnitentibus causis.'

⁵⁰ Berlin, MS Phill. 1833, fol. 45^v: 'Nos tamen omnibus his xxviii decemnovenalibus cyclis duos subiecimus, ut quod Dyonisium facere debuisse dicimus, eis lectoris diligentiae manifestemus.'

remaining twenty-six nineteen-year cycles in a 532-year Dionysian cycle.⁵¹ Finally, he referred his reader to the fact that the Incarnation era and the fifteen-year indiction cycle did not revert to their point of origin at the end of a 532-year cycle.⁵²

‘Cycli decemnovenales secundum ordinem annorum’ (535–72)

At the end of Abbo’s *Praefatio ad cyclos paschales* we find an explicit reference to two Abbonian nineteen-year cycles, which in the manuscript in which they are preserved do indeed follow the tripartite 532-year cycle for the period 1 BC–AD 1595. (See Table 11a and Table 11b.)

Abbo considered these tables to be a correction of the first two nineteen-year cycles in a 532-year Dionysian cycle. A first striking observation is the fact that the dates in the Abbonian nineteen-year cycles (535–72 VA) are three years higher than in Dionysius Exiguus (AD 532–69). He based this correction both on the Eusebian-Jeromian chronicle and on the fact that the date of Christ’s Passion had to be the thirteenth year of a nineteen-year cycle (34 VA = 13/19). We find the same difference of three units in the indiction number.

The lunar parameters (epact and Paschal term) are unchanged with respect to the nineteen-year Dionysian cycles, nor were the years of the lunar cycle affected. However, Abbo did recalculate the solar parameters (leap year, concurrent, and Easter Sunday), based on a ninety-five-year cycle that he erroneously ascribed to Cyril of Alexandria (d. 444).⁵³ The computistical data of this ninety-five-year cycle coincide with the period 627–721 of a 532-year Dionysian cycle, and this explains why the first concurrent in Abbo’s first nineteen-year cycle (i) does not coincide with the last concurrent in this ninety-five-year Isidorian cycle (ii). With this erroneous attribution to Cyril, Abbo created a new problem for himself. He knew perfectly well that Dionysius’s ninety-five-year cycle (532–626) was supposed to match up perfectly with the ninety-five-year cycle of the ‘real’ pseudo-Cyril

⁵¹ Berlin, MS Phill. 1833, fol. 45^v: ‘His enim inspectis de reliquis per totum magnum annum peritus calculator non dubitabit, si tamen saltem dubitare placuerit.’

⁵² Berlin, MS Phill. 1833, fol. 45^v: ‘Sciendum denique quod in his circulis Dyonisii anni Domini sua serie prodeunt, et xv annis evolutis indictiones redeunt, nec ad solem nec ad lunam pertinentes, et idcirco finito magno anno non eo modo quo coepae sunt redeunt.’ See also Beda Venerabilis, *De temporum ratione liber*, ch. 65.

⁵³ In fact this is not the ninety-five-year cycle of pseudo-Cyril of Alexandria (after 457), but rather a ninety-five-year cycle that Abbo had discovered in Isidore of Seville, *Etymologiarum sive originum libri XX*, ed. by Wallace M. Lindsay, *Scriptorum classicorum bibliotheca Oxoniensis*, 2 vols (Oxford, 1966), 6:17.

(437–531). It is for this reason that at later stages in his work he would devise frequently farfetched solutions to this non-existent problem.

Because the penultimate year in the Isidorian ninety-five-year cycle was a leap year, the next leap year would logically fall in the third year of Abbo's first nineteen-year cycle (5 VA). In concrete terms this meant that 33 VA must also have been a leap year. Because he also knew that the date of Christ's Passion (34 VA) had to have concurrent 5, Abbo was able to calculate both the leap years and the concurrents for all remaining years in his two nineteen-year cycles. In changing the concurrents, it followed that Abbo also had to change all the rest of the relevant paschal data. In this way Abbo was indeed able to fix 27 March (luna xvii) as Easter Sunday in the year 34 VA, which corresponded perfectly with the Latin tradition. He thereby corrected Dionysius Exiguus, who for AD 34 had arrived at the unacceptable date of 28 March (luna xxi).

A Correction of Three Years (532 AD = 535 VA)

Abbo's *Praefatio ad cyclos paschales* has a bipartite structure. Following a general exposition of the luni-solar nature of a 532-year cycle, Abbo examines the date of Christ's Passion, on the one hand, and the date of Benedict of Nursia's death, on the other. Both parts have as their goal to undermine the validity of Dionysius's Incarnation era. As far as the date of Christ's Passion is concerned, Abbo correctly observed that the Dionysian 532-year cycle was in opposition to the *fides catholica*. He determined that according to both the Latin and the Greek traditions Christ had died on luna xv and not on luna xviii. This first part is, in fact, an expansion of Bede's chapter on the Incarnation era of Dionysius Exiguus.⁵⁴

The computistical data concerning the date of Benedict's death were not, however, taken into consideration by Bede, and this was an oversight for which Abbo would on more than one occasion take him to task. Based on a false document, the *Vita sancti Mauri Glannafoliensis* by Odo of Glanfeuil (d. c. 868), Abbo noted the day of his patron saint's death, namely Easter Saturday, 22 March (luna xv). The few years with this unusually early Easter Saturday were easy to trace in a Dionysian 532-year cycle, but not a one of them could be found to agree with the reliable historical data provided by Victor of Capua and Paul the Deacon.

Abbo then realized that he had found a second justification for undermining the validity of the Dionysian era. This prompted him to undertake his own search for a possible solution, and to this end he went back to the foundational work of

⁵⁴ Beda Venerabilis, *De temporum ratione liber*, ch. 47.

medieval historiography, namely the Eusebian-Jeromian chronicle. Using the reckoning according to Olympiads, he counted 287 rather than 284 years from Christ's Birth (194/3) up to and including the first regnal year of Diocletian (266/2), and consequently 535 instead of 532 years from Christ's Birth (1 VA) up to and including the first year of a Dionysian 532-year cycle (535 VA).

Abbo connected these chronographical data to the fact that Christ must have died in the thirteenth year of a nineteen-year cycle (13/19). Only in this cyclic year did the Paschal term (luna xiv) fall on 24 March, as prescribed by the Latin tradition. After he had entered 535 VA for the first year of the cycle (1/19), Abbo could observe that the year 566 VA (34 VA) had indeed been moved up to the thirteenth year of a nineteen-year cycle (13/19). This confirmed Abbo's correction of Dionysius's Incarnation era by three years. He was supported by both the Latin tradition and the Eusebius-Jerome. Towards the end of his *Praefatio* we encounter this increased confidence not only in his criticism of Bede, but also in his explicit reference to two nineteen-year cycles *secundum ordinem annorum* of his own making, which he considered as valid replacements for the first two nineteen-year cycles of a Dionysian 532-year cycle.

We indeed find Abbo's correction of three years (AD 532 = 535 VA) reflected in these tables, and yet they raise a number of new questions. An initial striking observation is the fact that the leap years are not correctly placed. Although Abbo knew perfectly well that, for example, 988 and 992 were both leap years, he placed the first one in 5 VA (AD 2). A second problem is the correspondence between Cyril's ninety-five-year cycle and his *Primus ciclus Dionisii talis esse debuit secundum ordinem annorum*. It is true that he took on board the rhythm of the leap years, but unfortunately he could not do the same for the series of concurrents. In that case the concurrent in the year of Christ's Passion (34 VA) was certainly not 5, and this in turn conflicted with the Latin tradition which held that 24 March (luna xiv) was a Thursday. The third and most significant sticking point remained, however: the date of Benedict's death. In his corrective tables he could not manage to link the sixteenth cycle year to the necessary concurrent 3. In other words, Abbo was confronted with the fundamental problem of not being able to collate computistically the correct date of Christ's Passion (34 VA) and the correct date of Benedict's death, namely the sixteenth year in which Easter Sunday fell on 21 March (luna xiv).

Nevertheless, the solution lay within Abbo's grasp. Using Bede's method for calculating the concurrent of any given year, Abbo had already calculated that 497 years had passed between Christ's Passion and the death of Benedict. Because according to the Latin tradition Christ's Passion corresponded to 34 VA, he could

easily have dated Benedict's death to 531 VA ($34 + 497 = 531$). This year falls, it is true, just outside the period of his two cycles (535–71), but following further calculations we may conclude that 531 VA meets perfectly the criteria Abbo himself established, namely that Benedict died on Easter Saturday, 22 March (luna xiv) in the sixteenth year of a nineteen-year cycle with a concurrent 3.

Table 12

<i>Anni Domini</i>	<i>Indictiones</i>	<i>Epactae lunae</i>	<i>Concurrentes</i>	<i>Ciclus lunae</i>	<i>xiiiimae lunae paschales</i>	<i>Dominici dies paschae</i>	<i>Luna ipsius diei</i>
dxxxi	viii	xv	iii	xiii	xii Kal. Apr.	xi Kal. Apr.	xv † Benedict
dxxxii	x	xxvi	iiii	xiiii	v Id. Apr.	[...]	[...]
B dxxxiii	xi	vii	v	xv	iiii Kal. Apr.	[...]	[...]
dxxxiv	xii	xviii	vii	xvi	xv Kal. Mai.	[...]	[...]
dxxxv	xiii	nulla	i	xvii	Nonae Apr.	vii Id. Apr.	xvi
dxxxvi	xiiii	xi	ii	xviii	viii Kal. Apr.	iii Kal. Apr.	xviii
B dxxxvii	xv	xxii	iiii	xviii	Id. Apr.	xiii Kal. Mai.	xviii

There are two possible reasons for why Abbo did not explicitly mention this solution. Firstly, it may be that he did not see the solution. On the one hand this seems the more likely option, but on the other hand Abbo himself had already calculated that there were precisely 497 years between Christ's Passion and the death of Benedict. Secondly, it may be that Abbo did indeed see the solution, but did not dare call attention to it because it carried a much bigger problem with it. After all, this would prove once and for all that the ninety-five-year Dionysian cycle did not agree with the ninety-five-year cycle that Abbo had erroneously attributed to Cyril of Alexandria. The fact that in all further phases of his work Abbo wrestles explicitly with this non-existent problem increases the likelihood of this second option.

The Second Phase (1000)

Prologus de ciclo magno paschae

In precisely the year 1000 Abbo wrote a new introduction to his tripartite 532-year cycle. Until recently this commentary had not been attributed to Abbo himself, but to an anonymous author who had replaced the text with Abbo's above-mentioned correction of three years.⁵⁵ In a later letter to Geraldus and Vitalis

⁵⁵ Alfred Cordoliani, 'Les manuscrits de la bibliothèque de Berne provenant de Fleury au XI^e siècle: le comput d'Abbon', *Revue d'histoire ecclésiastique suisse*, 52 (1958), 135–51 (p. 147).

(1003), Abbo nevertheless explicitly mentioned a work he had written earlier in which he had studied the problem of the date of the Creation of the world.⁵⁶ Because we encounter the very same problem in this *Prologus de ciclo magno paschae*, we are justified in attributing this work without hesitation to Abbo of Fleury. Although this brief prologue does not contain the correction of the Dionysian era, it is nevertheless of crucial significance for what it reveals about the evolution of Abbo's computistical theories. As we know, this text determined the structure of Abbo's later letters to his students, Geraldus and Vitalis (1003 and 1004).

Following a fairly general explication of the luni-solar nature of a 532-year cycle, and using three separate examples, Abbo attempted to demonstrate that every year in a 532-year cycle had a unique combination of lunar and solar years.⁵⁷ The first example concerned the first year of a 532-year cycle, which was the ninth year of a solar twenty-eight-year cycle and the first year of a lunar nineteen-year cycle ($9/28 + 1/19 = 1/532$).⁵⁸ For his second example Abbo went all the way back to the year of Creation (AM 1), in which the epact was 15 and the concurrent 7.⁵⁹ The very first year of the world must also have been a leap year, because due to the newly created sun, the intercalation of a leap year would only have been necessary after four complete years.⁶⁰ He discovered the unique combination of all of these computistical parameters in the 149th year of a 532-year cycle, which was at the same time the seventeenth year of a solar twenty-eight-year cycle and the sixteenth year of a lunar nineteen-year cycle ($17/28 + 16/19 = 149/532$).⁶¹ Abbo subsequently

⁵⁶ Berlin, MS Phill. 1833, fol. 56^v: 'Porro ad octavum cyclorum Dyonisii revertamus in cuius anno xvi caput saeculi annotatur, quoniam sicut in alio nostro opusculo iam diximus.' Neither Varin nor Van de Vyver have been able to trace this reference: Varin, 'Lettre critique d'Abbon de Fleury', p. 121 n. 2, and Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', p. 155 n. 4.

⁵⁷ Berne, Burgerbibliothek, MS 306, fol. 1^r: 'Cum ita sit, ponamus quoslibet concurrentes alicuius anni solaris cum quibuslibet epactis alicuius anni decennovenalis circuli et inveniemus quod infra dxxxii annorum spatium, nullus annus huic quantum ad supputationem solis et lunae similis fuit, nec futurus sit.'

⁵⁸ Berne, MS 306, fol. 1^r: 'verbi gratia, primo anno circulatorum Dyonisii nonus annus est cicli solaris, habens concurrentes iiii, primus quoque annus cicli decennovenalis nullam habens epactam'.

⁵⁹ Berne, MS 306, fol. 1^r: 'Sumamus ergo in origine mundi querere quis annus ciclorum solaris vel lunaris videatur fuisse. Etenim anno quo mundus factus est xv epactas fuit, quia tunc luna in xi kl. apr. xvma extitit, concurrens vero vii, quia nono kl. apr. sabbatum fuisse creditur.'

⁶⁰ Berne, MS 306, fol. 1^r: 'Sed quia concurrens vii in ciclo solaris frequentius invenitur, ille tantum vii existimatur qui bissexto praetitulatur, quoniam more primi anni bissextilis sol novus ex oriens ingressus est xv kl. apr. arietem primo puncto primae horae noctis.'

⁶¹ Berne, MS 306, fol. 1^r: 'Quare in principio mundanae Creationis fuit annus xvii cicli solaris et xvi cicli decennovenalis, dies vero paschae viii kl. apr., sicut Dionisius dclxxx anno ab incarnatione

calculated that from the year of Creation precisely 260 years had to be added in order to arrive at the date of Christ's Passion according to the Hebrew verity (AM 3984).⁶² At the same time he observed that a similar calculation had to be carried out based on the Septuagint era (AM 5228).⁶³ Abbo was, however, aware of the fact that the results of this calculation could have far-reaching consequences for existing chronographical reckonings, and he therefore proclaimed that the results could not be in conflict with the gospel verity.⁶⁴ It is also striking that Abbo himself does not perform this potentially dangerous calculation in this prologue. In a marginal note next to the year 680 of the accompanying Abbonian 532-year cycle we find, however, a similar calculation pertaining to the date of Christ's Birth (AM 5199).⁶⁵

Finally, in his third example Abbo refers to the year 1000 as the first year of a solar twenty-eight-year cycle and the thirteenth year of a lunar nineteen-year cycle ($1/28 + 13/19 = 469/532$).⁶⁶ From the way it is worded, it is clear that the prologue was written precisely in the year 1000. The conclusion of the prologue is less significant. There Abbo provides a fairly general commentary on the 532-year table of concurrents that he annotates after his own triple 532-year cycle.

Christi disposuit, in octavo scilicet ciclo decennovenali.' The year 680 (=149/532) of the corresponding Abbonian 532-year cycle indeed contains the note *caput seculi*: Berne, MS 306, fol. 3'.

⁶² Berne, MS 306, fol. 1': 'Eundem ergo annum primum ponendo extendatur annorum series ab origine mundi usque ad annum dominicae passionis erantque m̄dcccclxxxiii qui dividantur per dxxxii , ita septies dxxxii fiunt m̄idccxxiii , et supersunt cclx , qui ab anno superius descripto perducuntur ad eum quo passus est Christus.' After dividing 3984 by 532, we do indeed get a remainder of 260 ($3984 : 532 = 7$ and $r=260$).

⁶³ Berne, MS 306, fol. 1': 'Similiter ad eandem passionem de annis ab origine mundi secundum lxx interpretes faciendum est.'

⁶⁴ Berne, MS 306, fol. 1': 'Denique si quid huiusmodi supputatio vacillet non evangelicae fidei derogandum est, sed diversae chronographorum auctoritati, qui de ordinatione temporum nunc hoc tunc illud asserunt.'

⁶⁵ Berne, MS 306, fol. 3': 'Ab initio mundi xus magnus annus sive magnus cyclus cuius hic principium est agebatur quando Christus natus est. Cuius magni cycli scilicet xmi iuxta omnium chronographorum fidem ccccimo anno Christus natus est, qui est annus viii in secundo ciclo Dionisii. Nam tunc erant ūxcviii anni a principio mundi.' According to the Septuagint era, Christ was born in the 411th year of a Dionysian 532-year cycle ($\text{AM } 1 = 1/532 \rightarrow \text{AM } 5199 = 411/532$, because $5199 : 532 = 9$ and $r=411$). Abbo had, however, equated the year of Creation with the 149th year of a 532-year cycle. Consequently Christ was born in the twenty-seventh year of a 532-year cycle, which corresponded with the eighth year of Dionysius's second nineteen-year cycle ($\text{AM } 1 = 149/532 = \text{AD } 680 \rightarrow \text{AM } 5199 = 27/532 = \text{AD } 558$).

⁶⁶ Berne, MS 306, fol. 1': 'in hoc anno millesimo ab incarnatione Christi primus annus cycli solaris, xiii vero cycli decennovenalis'.

'Laterculus anterior' (Berne version)

The first version of Abbo's *Laterculus* consists of 28 x 19 lunar cycles. Together they constitute a luni-solar table in which each year is represented by its concurrent number. In combination with the Paschal terms included at the bottom, one could calculate the date of Easter in a relatively straightforward manner. Abbo clearly refers to this *Laterculus* in his *Prologus de ciclo magno paschae* (1000).⁶⁷ Cordoliani's hypothesis that the 532-year table of concurrents in the Berne manuscript served as a replacement for the one that appears in the Berlin manuscript is thus no longer tenable.⁶⁸ (See Table 13.)

This table is a heavily abridged version of Abbo's *Laterculus anterior*. The two columns on the left contain the double dating according to the Dionysian era, namely for the period 532–1063 and for the period 1064–1595. In the extreme right-hand column, however, we find Abbo's divergent reckoning. The Dionysian dates refer to the first year of a nineteen-year cycle (1/19), the Abbonian dates to the last year of a nineteen-year cycle (19/19). Abbo's own reckoning is grounded in his error in mistaking the Isidorian ninety-five-year cycle (627–721) for the ninety-five-year pseudo-Cyrrillian cycle (437–531).

Abbo highlighted this ninety-five-year cycle with a [. At the same time he knew perfectly well that the real ninety-five-year pseudo-Cyrrillian cycle had to end in 531, and therefore he began his own corrected era with this date.

Abbo also marked off three important dates in this 532-year table of concurrents. He circled Christ's date of Incarnation according to Dionysius (2/532). With two brackets he indicated the date of Creation (149/532) and the date of Christ's Passion according to the Latin tradition (513/532), respectively. The date of Benedict's death remained, however, an irresolvable problem. In his *Praefatio*, Abbo had already indicated that Benedict had died on Easter Saturday, 21 March (luna xiv), which was only possible in the sixteenth year of a nineteen-year cycle with a concurrent 3. Not a single year in the period 529–604 VA, however, met these criteria.

⁶⁷ Berne, MS 306, fol. 1': 'Ceterum quomodo pariter currant, pariter redeant per hos circulos Dyoniisii uno laterculo descripsimus qui habet xviii ciclos solares et xxvii ciclos decennovenaes. Sunt autem in eodem laterculo concurrentes dxxxii a sinistra legentis in dexteram suo ordine dispositi a nono anno cicli solaris, cuius in hoc laterculo et aliorum initium ex minio est expressum, desuper quoque xviii annorum numerus est ascriptus.'

⁶⁸ Cordoliani, 'Les manuscrits de la bibliothèque de Berne', p. 148.

Table 13. *Laterculus anterior Abbonis*

AD (~Dionysius)		1/19	2/19	3/19	4/19	[...]	16/19	17/19	18/19	19/19	VA (~Abbo)
532	1064	4.	5	6	7		1	3.	4	5	892
551	1083	6	1.	2	3		4	5	7.	1	911
570	1102	2	3	5.	6		7	1	2	4.	930
589	1121	5	6	7	2.		3.	4	5	6	949
608	1140	1.	2	3	4		5	7.	1	2	968
627	1159	3	5.	6	7		1	2	4.	5	987
646	1178	6	7	2.	3		4	5	6	1.	1006
665	1197	2	3	4	6.		7.	1	2	3	1025
684	1216	5.	6	7	1		2	4.	5	6	1044
703	1235	7	2.	3	4		5	6	1.	2	531
722	1254	3	4	6.	7		1	2	3	5.	550
741	1273	6	7	1	3.		4.	5	6	7	569
760	1292	2.	3	4	5		6	1.	2	3	588
779	1311	4	6.	7	1		2	3	5.	6	607
798	1330	7	1	3.	4		5	6	7	2.	626
817	1349	3	4	5	7.		1.	2	3	4	645
836	1368	6.	7	1	2		3	5.	6	7	664
855	1387	1	3.	4	5		6	7	2.	3	683
874	1406	4	5	7.	1		2	3	4	6.	702
893	1425	7	1	2	4.		5.	6	7	1	721
912	1444	3.	4	5	6		7	2.	3	4	740
931	1463	5	7.	1	2		3	4	6.	7	759
950	1482	1	2	4.	5		6	7	1	3.	778
969	1501	4	5	6	1.		2.	3	4	5	797
988	1520	7.	1	2	3		4	6.	7	1	816
1007	1539	2	4.	5	6		7	1	3.	4	835
1026	1558	5	6	1.	2		3	4	5	7.	854
1045	1577	1	2	3	5.		6.	7	1	2	873
Æpactæ		Nihil	11	22	3		15	26	7	18	
Termini paschales		Apr. Non.	Apr. viii Kal.	Apr. Id.	Apr. iiii Non.		Apr. xii Kal.	Apr. v Id.	Apr. iiii Kal.	Mai. xv Kal.	
Regulares		5	1	6	2		4	2	5	3	

New Answers and New Questions

Abbo's calculations did result in two important answers. He was able to date successfully the year of the Creation of the world (149/532) and the year of

Christ's Passion (513/532) in a luni-solar 532-year cycle. Abbo did not manage, however, to fit the date of Benedict's death into his *Laterculus anterior*. The dating of Christ's Birth remained problematic, as well, because Dionysius (2/532 = AD 1) differed substantially from the Septuagint era (AM 5199 = 27/532 = AD 26). New solutions to these problems had to be found.

The Third Phase (1003)

'Epistola prima ad Geraldum et Vitalem'

The recipients of Abbo's letter were two fellow monks at Fleury, namely Geraldus and Vitalis.⁶⁹ We may deduce from the opening lines of this letter that Abbo had already discussed with both monks the unravelling of an 'obscure' problem concerning the 532-year luni-solar cycle.⁷⁰ In other words, Abbo realized perfectly well that he was treading on delicate ground in his consideration of this problem, but he justified his research by positing that this computistical question was fully deserving of a final solution.⁷¹ It was for this reason that he decided to tackle the problem by means of rational analysis.⁷² As he had done in his *Praefatio*, in this context Abbo criticized the incompleteness of Bede's analysis.⁷³

⁶⁹ Geraldus identifies himself as the scribe of a compilation manuscript of tracts dealing with astronomy and music, namely Paris, Bibliothèque nationale de France, MS lat. 8663, fol. 46^r (Fleury, s. XI): Mostert, *Library of Fleury*, p. 226. It is possible that he is to be identified with the Abbot of St Gildas-de-Rhuys of the same name: Alexandre Vidier, *L'historiographie à Saint-Benoît-sur-Loire et les miracles de saint-Benoît* (Paris, 1965), p. 110 n. 258.

⁷⁰ Berlin, MS Phill. 1833, fol. 56^r: 'Saepe memini plus vobis voluisse prodesse quam potuisse quos viros desideriorum intueor, idcirco magni cycli naturam et de eo obscurissimam quaestionem enodare gestiens, in communionem recoepi, ut mecum oretis, mecum pulsetis, quatinus si quid Deus invenire donaverit, vestris orationibus adscribam, si quid meae tarditati subtraxerit, meis peccatis imputem.'

⁷¹ Berlin, MS Phill. 1833, fol. 56^r: 'Est enim prohibitum nec Deus intersit nisi dignus vindice nodus incidit.'

⁷² Berlin, MS Phill. 1833, fol. 56^r: 'Nodum igitur quaestionis quodam cuneo rationis scindere prout potui, ratum duxi, verumtamen impedimento fuerunt quae se plus nimio ingerunt cogitationum tumultus, familiariam frequentia rei saecularis occupatio, et peccatorum meorum recordatio.'

⁷³ Berlin, MS Phill. 1833, fol. 56^r: 'Cumque his lenociniis illectus, paululum ab artioris viae itinere defecissem, rursus ad hanc lugubratuunculam provocavit studium Bedae venerabilis presbyteri qui in huiusmodi quaestionibus. multam operam consumsit, nec tamen ad liquidum prosecutus opus imperfectum reliquit. Dum enim cyclos Dyonisii abbatis auctoritate Niceni concilii fultos

Abbo subsequently focused again on the problematic connection between Dionysius's ninety-five-year cycle (532–626) and the Isidorian ninety-five-year cycle (627–721), which he still erroneously considered to be the ninety-five-year pseudo-Cyrrillian cycle (437–531).⁷⁴ The final year of the Isidorian ninety-five-year cycle fell after all in the second year of a solar twenty-eight-year cycle (2/28), whereas according to a Dionysian 532-year cycle it was supposed to be the eighth year of a twentieth-eight-year solar cycle (8/28).⁷⁵ Abbo arrived at this conclusion by comparing the concurrent in the last year of the ninety-five-year Cyrrillian cycle with the concurrent in the last year of a 532-year Dionysian cycle. Although the concurrent number for both years was 2, he correctly observed that they represented different years in a twenty-eight-year solar cycle.

Table 14

$x/28$	1	2	3	4	5	6	7	8	9	10	11	12	13	14
concurrent	1	2	3	4	6	7	1	2	4	5	6	7	2	3
	B				B				B				B	

$x/28$	15	16	17	18	19	20	21	22	23	24	25	26	27	28
concurrent	4	5	7	1	2	3	5	6	7	1	3	4	5	6
			B				B				B			

The confusion was heightened when Abbo established that the ninety-five-year Isidorian cycle proved to be identical to the sixth up to and including the tenth nineteen-year cycle in a Dionysian 532-year cycle, namely for the period 627–721. Consequently this ninety-five-year 'Cyrrillian' cycle appeared to follow the ninety-

idem presbyter comperit, eos ad unguem discutere noluit, ne quid erroris aliunde irreperet, quod ad Niceni concilii inviolabilem firmitatem non pertineret.'

⁷⁴ Berlin, MS Phill. 1833, fol. 56^r: 'Siquidem praedictus Dyonisius beatissimi monachorum legislatoris synchronos ut ipse fatetur exiguus, scripsit v decemnovenales cyclos, ab anno dominicae incarnationis dxxii usque ad dcxxvi secutus sanctum pontificem Cyrillum, qui v cyclos itidem paschales, sive decemnovenales composuit, quorum ultimum suo primo praeposuit, ut alter alteri, ita succederet, quatinus temporum ratus ordo maneret. Quae vero sit eorum consequentia, quae repugnantia, postmodum liquebit, cum cyclos solares et decemnovenales conferemus ad invicem in suis concurrentibus et aepactis.'

⁷⁵ Berlin, MS Phill. 1833, fol. 56^r: 'Denique sanctus Cyrillus ab anno quo imperavit Dyoclecianus cliii ipsos suos v cyclos coepit, et usque ad ccxlvii teste Dyonisio perduxit, qui est annus dominicae incarnationis dxxxi. Quo anno ii concurrentes fuerunt sub cyclo solari iuxta Cyrillum secundo, iuxta Dyonisium octavo.'

five-year cycle of Dionysius (532–626) rather than precede it.⁷⁶ Because on the one hand the Cyrillian ninety-five-year cycle ended with the second year of a twenty-eight-year solar cycle (2/28) and on the other hand the 532-year Dionysian cycle began with the ninth year of a twenty-eight-year solar cycle (9/28), Abbo concluded that six solar years were missing between ‘Cyril’ and Dionysius.⁷⁷

Abbo sought confirmation for this theory in the Creation era of Eusebius of Caesarea (AM 5199).⁷⁸ He divided these 5199 years into twenty-eight-year solar cycles ($185 \times 28 + 19$), nineteen-year lunar cycles ($273 \times 19 + 12$), and 532-year luni-solar cycles ($9 \times 532 + 411$).⁷⁹ Next, he placed the year of the Creation of the world (AM 1) in the seventeenth year of a twenty-eight-year solar cycle and in the sixteenth year of a nineteen-year lunar cycle.⁸⁰ Abbo correctly observed that such a combination occurs just once in a 532-year luni-solar cycle, namely in the 149th year ($17/28 + 16/19 = 149/532$).⁸¹ As he had done in his *Prologus de ciclo magno paschae*, Abbo illustrated this claim with two examples. First he indicated that the *annus praesens* (1003) at the time was a combination of the fourth year of a twenty-eight-year solar cycle and the sixteenth year of a nineteen-year lunar cycle ($4/28 +$

⁷⁶ Berlin, MS Phill. 1833, fol. 56^r: ‘Sic factum est ut non Dyonisius, Cyrillum sed Cyrillus videatur secutus esse Dyonisium, licet idem Dyonisius dicat, quod post cclxvii Diocleciani annum ipse suos cyclos inchoaverit, anno cclxviii ponendo sub tempore bissexti concurrentes iiii.’

⁷⁷ Berlin, MS Phill. 1833, fol. 56^r: ‘Sunt itaque intermissi vi solares anni, ut ratur iam ordo temporum esse non possit, cum apud alterum auctorem iiii concurrentes post secundum annum solarem tertio scilicet sequi debuerint, quos alter bissexto interveniente sub nono anno iiii concurrentes effecit.’

⁷⁸ Berlin, MS Phill. 1833, fol. 56^r: ‘Quam duorum auctorum dissensionem, discutiamus per annos ab origine mundi usque ad nativitatem Christi, qui sunt ūxciii.’

⁷⁹ Berlin, MS Phill. 1833, fol. 56^r: ‘In his enim sunt clxxxv cycli solares, et insuper xviii anni; decemnovenales vero cclxxvi et insuper xii anni. Sunt etiam ex utrisque solaribus scilicet atque decemnovenalibus confecti viiii magni cycli, et insuper cccxi anni.’

⁸⁰ Berlin, MS Phill. 1833, fol. 56^r: ‘Si vero quaeris in supradictis xxviii cyclis una serie dispositis, qui in his annis conveniat primo ubi dicitur caput saeculi, scito cognoscens illum esse absque ullo scrupulo ubi sibi communicant xvii annus solaris et xvi decemnovenalis.’ Abbo had earlier already explained this theory of Creation: see above, the section on ‘The Second Phase (1000): *Prologus de ciclo magno paschae*’.

⁸¹ Berlin, MS Phill. 1833, fol. 56^r: ‘Ea est enim concordia duorum magnorum luminarium solis videlicet atque lunae ut infra magnum annum sive magnum cyclum, qui constat dxxxii annis, nusquam nisi semel alter alteri conveniat, nusquam infra illud spatium, nisi semel convenientia duorum luminum existat.’

$16/19 = 472/532$).⁸² Additionally he observed that the first year of a 532-year Dionysian cycle corresponded to the ninth year of a twenty-eight-year solar cycle and the first year of a nineteen-year lunar cycle ($9/28 + 1/19 = 1/532$).⁸³ Abbo refined his theory by positing that every possible combination of a twenty-eight-year solar cycle and a nineteen-year lunar cycle occurred precisely once, no more and no less, in a 532-year luni-solar cycle.⁸⁴ Following this observation, Abbo identified the 149th year of a 532-year cycle ($149/532$) as the only possible year for the Creation of the world (AM 1).

Next Abbo referred to the luni-solar possibilities of a 532-year cycle, whereby the computistical data of the current year (1003) could also be recovered from the past (471) and the future (1535).⁸⁵ By consistently applying this luni-solar functionality time and again, Abbo expanded his computistical range, from the moment of Creation until far into the distant future.⁸⁶ At the beginning of this he placed the year of Creation with a concurrent 7 and an epact 15 in the 149th year of a 532-year cycle (AM 1 = $149/532$).⁸⁷ Next Abbo counted out nine 532-year

⁸² Berlin, MS Phill. 1833, fol. 56^r: 'Verbi gratia hoc anno quartus annus solaris communicat decemnovenali xvi, quod nusquam alibi evenit in toto illo magno anno.'

⁸³ Berlin, MS Phill. 1833, fol. 56^r: 'Nec hoc dico ut in solari circulo non repetantur numeri, qui usque ad vii singuli in eodem circulo quater inveniuntur, cum idem solaris circulus decemnovenales in eodem magno cyclo repperiatur, sed quod numerus alicuius anni qui est in solari circulo, nusquam in toto magno anno nisi semel respondeat numero cuius habet anni qui est in circulo decemnovenali, utputa in primo anno primo cycli Dyonisii abbatis, est nonus solaris, et primus xviii nec usquam alibi. Cuius magni haec anni natura ut nulla praedictorum duorum luminum concordia sit, fuerit aut futura sit, quae non contineatur circulo eiusdem magni anni, quem Dyonisius quidem coepit, sed Beda usque ad finem perduxit.'

⁸⁴ Berlin, MS Phill. 1833, fol. 56^r: 'Cuius magni haec anni natura ut nulla praedictorum duorum luminum concordia sit, fuerit aut futura sit, quae non contineatur circulo eiusdem magni anni, quem Dyonisius quidem coepit, sed Beda usque ad finem perduxit.'

⁸⁵ Berlin, MS Phill. 1833, fol. 56^r: 'Si quid igitur de praeteritis vel futuris annis investigas, notato quolibet anno ei dxxxii sive addas sive subtrahas, talem procul dubio praeteritum annum subtrahendo vel futurum addendo invenies qualem antea praesentem notaveras, verbi causa nunc millesimus tercius ab incarnatione Domini agitur annus. Huic subtrahe dxxxii et supersunt cccclxxi. Rursus eidem adde dxxxii et erunt mdxxxv.'

⁸⁶ Berlin, MS Phill. 1833, fol. 56^{r-v}: 'Qualis itaque hic annus millesimus tercius per concurrentes et epactas, per solares lunares, necnon etiam paschales circulos, talis ille praeteriit, talis et iste futurus erit. Unde per singulos annos eiusdem magni cycli, sic facito duplicando seu triplicando, vel etiam centuplicando, et conversus siderum non latebit, praeteritorum vel futurorum temporum.'

⁸⁷ Berlin, MS Phill. 1833, fol. 56^r: 'Porro ad octavum cyclorum Dyonisii revertamus in cuius anno xvi caput saeculi annotatur, quoniam sicut in alio nostro opusculo iam diximus, eodem anno

cycles and 411 years on until the year of Christ's Birth (AM 5199).⁸⁸ At that point it was a further 120 years before the 532-year cycle drew to an end.⁸⁹ Using this logic, Abbo calculated that Christ's date of Incarnation should be placed in the twenty-seventh year of a 532-year luni-solar cycle, in which the seventh year of a nineteen-year lunar cycle and the eighteenth year of a twenty-eight-year solar cycle coincided (AM 5199 = 27/532).⁹⁰ Thus Abbo completed the computistical link between the year of Creation and the Birth of Christ.

Table 15

AM		x / 532
AM 1	° World	149 / 532
AM 5199	° Christ	27 / 532

Abbo subsequently concluded that Dionysius's Incarnation era was in error, because Christ's year of Incarnation coincided with the year 558 (27/532 = AD 26) and not with 533 (2/532 = AD 1).⁹¹ For this reason Abbo marvelled at the failure

sicut et in promordio, sabbato occurrerunt viiii kal. apr., et xv luna xi kal. eiusdem mensis, atque ideo tunc fuerunt concurrentes vii et aepacta xv.' Abbo here explicitly refers to his *Prologus de ciclo magno paschae*.

⁸⁸ Berlin, MS Phill. 1833, fol. 56^v: 'Restat ergo invenire annum dominicae incarnationis, si ab hoc primordio inchoes, et de illo magno cyclo tunc decimo usque ad nativitatem Christi, quid transierit, et quid in residuum fuerit, investiges. Nam ab origine mundi ultra viiii magnos cyclos usque ad ipsum Christum de decimo praediximus cccxi esse residuos.' Compare this remark with the marginal note in Berne, MS 306, fol. 3^v: 'Ab initio mundi xus magnus annus sive magnus cyclus cuius hic principium est agebatur quando Christus natus est. Cuius magni cycli scilicet xmi iuxta omnium chronographorum fidem cccximo anno Christus natus est, qui est annus vii in secundo cyclo Dionisii. Nam tunc erant tūxcviii anni a principio mundi.'

⁸⁹ Berlin, MS Phill. 1833, fol. 56^v: 'A nativitate vero Christi usque quo ille magnus cyclus decimus finiretur, superfuerunt anni cxx.'

⁹⁰ Berlin, MS Phill. 1833, fol. 56^v: 'Occurrit autem huiusmodi supputatione nativitas Christi in secundo cyclorum Dyonisii eo loci, ubi sibi communicant vii annus solaris et viii decemnovenalis.' Both Varin and Cordoliani published the faulty variant of the Chartres manuscript, namely 'ubi sibi communicant VIII annus solaris et nonus est decemnovenalis': Abbo of Fleury, *Epistola prima ad Geraldum et Vitalem*, ed. by Varin, p. 121, and Abbo of Fleury, *Epistola prima ad Geraldum et Vitalem*, ed. by Cordoliani, p. 478. This reading appeared originally in the Berlin manuscript as well, but was justifiably corrected. The scribe of the Montpellier manuscript forgot to copy this very line.

⁹¹ Berlin, MS Phill. 1833, fol. 56^v: 'Cui supputationi Dionisius contradicit, ponens ibidem dlvi secutus sancti cyrilli, non ex integro fidem, quandoquidem ubi ille secundum annum cycli solaris posuit iste in suis circulis octavum esse signavit.'

of the Christian Church to object to Dionysius's violation of the natural logic of a 532-year luni-solar cycle.⁹² After all, one was obliged to bring human chronography (*fides historiographorum*) into harmony with the established natural succession of years (*ordo naturae*).⁹³ Consequently one must not follow human chronography blindly and without regard for the natural order of the 532-year luni-solar cycle.

Abbo next wondered how he was to position 'Cyril' and Dionysius on this double track of chronography (man) and chronology (nature). On the one hand he asked himself which of the two authors ran counter to either the Eusebian era according to the Septuagint (AM 5199) or the Bedan era according to the Hebrew verity (AM 3952).⁹⁴ On the other hand, he wanted to know which of the two authors was correct in his numbering of the solar years, namely 'Cyril' (2/28) or Dionysius (8/28).⁹⁵ He determined that the Church had ultimately opted for Dionysius Exiguus, although according to Abbo his Incarnation era did not agree with historical reality.⁹⁶

In order to support this claim with a second example, Abbo searched for the computational data concerning the date of Christ's Passion in a 532-year Dionysian cycle.⁹⁷ He grounded his argument in the gospel evidence (namely that Christ had

⁹² Berlin, MS Phill. 1833, fol. 56^v: 'Et quid mirum si vir tantae auctoritatis annis Domini aliquid addidit vel subtraxit, cum ipsos circulos quod natura formavit immutaverit nec ei contradicat ecclesia universalis.'

⁹³ Berlin, MS Phill. 1833, fol. 56^v: 'Quaedam enim tractantur secundum historiae fidem, quaedam secundum naturae ordinem, verumtamen plerumque hoc eadem utraque confundit hominum opinio, dum et historiae fidem non simpliciter exsequitur, et naturae variare conatur.' See also Nadja Germann, 'Zwischen *veritas naturae* and *fides historiae*: Zeit und Dauer bei Abbo von Fleury', in *Das Sein der Dauer*, ed. by Andreas Speer and David Wirmer, *Miscellanea Mediaevalia*, 34 (Berlin, 2008), pp. 171–95.

⁹⁴ Berlin, MS Phill. 1833, fol. 56^v: 'Quis enim de annis ab origine mundi contradicit lxx interpretibus, quis hebraicae veritati?'

⁹⁵ Berlin, MS Phill. 1833, fol. 56^v: 'Quem in solaribus annis veriolem esse credemus Cyrillum Dyonisio, an Dyonisium Cyrillo?'

⁹⁶ Berlin, MS Phill. 1833, fol. 56^v: 'Ecce utrumque laudat ecclesia catholica, utrumque magnificat, attamen Dyonisio magis favet, qui etsi annos incarnationis Domini, vel extendit vel contrahit, procul dubio nihil officit, praesertim cum festivitati paschali nihil impedit.'

⁹⁷ Berlin, MS Phill. 1833, fol. 56^v: 'Paschalem autem festivitatem eo anno quo Christus natus est ab re est inquirere, sed abhinc xxxiii vel potius xxxiiii non est inutile, quandoquidem iuxta evangeliorum fidem Christus luna xiiii est traditus; luna xv crucifixus, luna xvi requieuit in sepulchro, luna xvii resurrexit a mortuis.'

died on Friday, luna xv, and was resurrected on Sunday, luna xvii) and in the Latin tradition (namely that Christ had died on 25 March and was resurrected on 27 March).⁹⁸ For further information on this he consulted Bede's *De temporum ratione*.⁹⁹ Contrary to his *Praefatio*, this time Abbo did complete his argument by positing that he had found these computistical data in the thirteenth year of the very first nineteen-year cycle (13/532).¹⁰⁰ Using this as his point of departure, Abbo finally formulated his computistical correction of Dionysius's Incarnation era by twenty-one years.¹⁰¹ He replaced the first year of a 532-year Dionysian cycle with 553 VA and consequently placed 565 VA in the thirteenth year of the first nineteen-year cycle (565 VA = 33 VA = AD 12).¹⁰²

⁹⁸ Berlin, MS Phill. 1833, fol. 56^v: 'Quo vero kalendario id actum sit, non evangeliorum historia, sed antiquorum patrum opinio palam fecit, quia a viiii kal. apr. in vi kal. eiusdem mensis idem tempus extendit, a feria videlicet v in dominicam.'

⁹⁹ Berlin, MS Phill. 1833, fol. 56^v: 'Quae omnia venerabilis Beda plenius prosequitur in libro de temporibus capitulo xlvi.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

¹⁰⁰ Berlin, MS Phill. 1833, fol. 56^v: 'Verum nos istiusmodi seriem cyclorum Dyonisii repperimus terciodecimo scilicet eiusdem cycli anno per v concurrentes et xii aepactas.'

¹⁰¹ Berlin, MS Phill. 1833, fol. 56^v: 'Unde annos dominicae incarnationis sursum versus contradiximus, ut eundem primum cyclum a dliii non a dxxxii inchoaremus, et sic dlxv annum eidem terciodecimo anno deputavimus.'

¹⁰² The Montpellier manuscript and the now-lost Chartres manuscript give for this crucial passage *dxxxiii* (533) instead of *dxxxii* (532). The Berlin manuscript, too, originally had *dxxxiii* (533), but in this case the number was rightly corrected to *dxxxii* (532). Based on the Chartres manuscript, Varin concluded that Abbo was here positing a correction of twenty years (553 VA = AD 533) instead of twenty-one years (553 VA = AD 532): Varin, 'Lettre critique d'Abbon de Fleury', p. 123 n. 2. This interpretation is, however, wrong because a 532-year Dionysian cycle begins unambiguously in 532 and not in 533. Moreover both manuscripts clearly show that Abbo equated the year 565 with the thirteenth year of the first nineteen-year cycle (544). This equation (AD 544 = 565 VA) is thus certainly original and confirms the argument presented above that Abbo is indeed presenting here a chronological correction of twenty-one years. Varin's fatal interpretative mistake was not corrected by Cordoliani and has been adopted by more recent authors: Cordoliani, 'Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon', pp. 466–68; Wesley M. Stevens, 'Sidereal Time in Anglo-Saxon England', in *Voyage to the Other World: The Legacy of Sutton Hoo*, ed. by Calvin B. Kendall and Peter S. Wells (Minneapolis, 1992), pp. 125–52 (p. 139); Eva-Maria Engelen, *Zeit, Zahl und Bild: Studien zur Verbindung von Philosophie und Wissenschaft bei Abbo von Fleury*, Philosophie und Wissenschaft: Transdisziplinäre Studien, 2 (Berlin, 1993), pp. 150–51; Arno Borst, *Die karolingische Kalenderreform*, Monumenta Germaniae Historica, Schriften, 46 (Hannover, 1998), p. 327; and Riché, *Abbon de Fleury*, pp. 117–19.

Abbo sought confirmation for this correction, however, by once again taking up the issue of the year of Benedict of Nursia's death.¹⁰³ As he had done in his *Praefatio*, he referred to this end to the *Historia romana* by Paul the Deacon and to the *Vita sancti Mauri Glannafoliensis*, which was written by Odo of Glanfeuil under the name Faustus of Monte Cassino. In his *Praefatio* Abbo had looked for the possible years in which Easter Saturday fell on 21 March (luna xiv). Because the year of Benedict's death had to be dated after 529 but before 604, he had at the time been compelled to dismiss all theoretical possibilities.¹⁰⁴ This time, however, Abbo was able to arrive at a positive result, because the very last possibility (AD 509) could be recalculated to 530 VA in the corrected reckoning.¹⁰⁵

Table 16

<i>x</i> / 532	<i>AD</i>	<i>VA</i>	<i>Easter</i>	<i>Hist. Event</i>
1/532	AD 532 (1 BC)	553 VA (21 VA)		
13/532	AD 544 (AD 12)	565 VA (33 VA)	27/3 (luna xvii)	† Christ
510/532	AD 509	530 VA	22/3 (luna xv)	† Benedict

Abbo saw this as confirmation for his twenty-one-year computistical correction. He therefore rejected the Dionysian era and became an adherent of the Incarnation era according to the Gospels and the reliable historical sources of Paul the Deacon and 'Faustus of Monte Cassino'.¹⁰⁶ This illustrates clearly how Abbo positioned his own correction with respect to the past. He assumes that his historical sources had recorded the date of Benedict's death according to this correct reckoning *iuxta fidem historiarum et evangeliorum* (VA), and not according to Dionysius's Incarnation era (AD). In other words, Abbo considered himself not so

¹⁰³ Berlin, MS Phill. 1833, fol. 56^v: 'Nec id ab historia romana discrepat in qua Paulus refert quod beatissimus monachorum Benedictus dxxviii vel potius dxxx ab incarnatione Domini anno, virtutum titulis claruit et ipso anno ut Faustus in gestis beatissimi levitae Mauri retulit, ex hac vita decessit, sabbato sancto paschae xii kal. apr.'

¹⁰⁴ See above, the section on 'The First Phase (after 988 / before 1000): *Praefatio ad cyclos paschales*'.

¹⁰⁵ Berlin, MS Phill. 1833, fol. 56^v: 'Quam paschalem huiusmodi festivitatem, si praedictos xxviii cyclos revolvat, nec ante nec post obitum eiusdem sanctissimi patris infra c fere annos invenies nisi in penultimo cyclo anno xvi quem dxxx ab incarnatione Domini annum fuisse arbitror.' Varin and Cordoliani mistakenly read *anno xiii*, whereas the Berlin manuscript unambiguously reads *anno xvi*. Moreover, a 532-year Dionysian cycle clearly teaches us that the year AD 509 (530 VA) is indeed the sixteenth year of the twenty-seventh and penultimate nineteen-year cycle.

¹⁰⁶ Berlin, MS Phill. 1833, fol. 56^v: 'Nec id dicens auctoritatem tanti viri refello, sed historiarum et evangeliorum fidei quod Adam reverentia magis assensum praebeo.'

much an original corrector of the Dionysian era, but rather as the rediscoverer of an era that had fallen into disuse. Dionysius was moreover criticized — as a contemporary of Benedict's — for not knowing that Benedict had died on Easter Saturday (*luna xiv*).¹⁰⁷ And yet Abbo was able to muster some small degree of sympathy for Dionysius, because he had quite possibly received faulty information which had as a consequence led him to miscalculate the Incarnation era.¹⁰⁸

Abbo decided to concentrate again on the ninety-five-year 'Cyrillian' cycle and the ninety-five-year Dionysian cycle. As he had done in his *Praefatio*, he counted in correct fashion 287 years from the forty-second regnal year of Augustus up to the first regnal year of Diocletian.¹⁰⁹ Both 'Cyril' and Dionysius had their own series of dates for this period, although Dionysius had maintained that his ninety-five-year cycle linked up well with that of 'Cyril'. Because the five nineteen-year 'Cyrillian' cycles were identical to the sixth through the tenth nineteen-year cycles of a 532-year Dionysian cycle, Abbo concluded that Dionysius should have begun with his eleventh nineteen-year cycle instead of with his first nineteen-year cycle.¹¹⁰

Just as he had done in his *Praefatio*, Abbo referred here as well to accompanying tables of nineteen-year cycles to clarify his computistical theories.¹¹¹ According to

¹⁰⁷ Berlin, MS Phill. 1833, fol. 56^v: 'Siquidem potuit fieri, ut clii anni qui dictuntur fuisse ab imperio Diocletiani usque ad principium cyclorum sancti Cyrilli xx aut eo amplius habuerint et vicio scriptorum ita ad Dyonisium usque pervenerit, qui eo tempore fuit quo Benedictus pater transiit, nec cum latere illud pascha potuit quod xi kal. apr. occurrit qui per tot succedentia tempora paschales circulos scripsit.'

¹⁰⁸ Berlin, MS Phill. 1833, fol. 56^v: 'Verum quia melior est iniquitas viri ut Salomon ait quam benefaciens mulier, pro parvo peccato paululum supplicii satis est patri, qui peccanti et confitenti viro catholico veniam tribuit, hereticum vero etiam benefacientem in aeternum perdit. Sunt praedicti viri catholici, si annos dominicae incarnationis secus quam se res habet posuerunt historiographorum magis culpa fuit, qui annos imperatorum sibi succedentium aliter atque aliter scriptitarunt.'

¹⁰⁹ Berlin, MS Phill. 1833, fol. 56^v: 'Siquidem a xlii anno Octaviani augusti usque ad imperium Diocletiani sunt cclxxx[v]ii anni, post cuius imperium nusquam sequitur series temporum quae omnino conveniat cyrculis sancti Cyrilli, licet Dionisius dicat clii anno eiusdem tyranni id potuisset fieri.' All manuscripts have the reading *cclxxxii* (282) instead of the more correct *cclxxxvii* (287).

¹¹⁰ Berlin, MS Phill. 1833, fol. 56^v: 'Dictum est enim quod extra magnum annum nulla series temporum fuit aut fuerit, pertinens ad concordiam lunae et solis. Ostensum etiam est quod in xxviii decemnovalibus cyclis, talis debeat esse primus qualis est xi exceptis indictionibus et annis Christi, quippe decimus finit v cyclos Cyrilli. Nullus autem eorundem cyclorum alter alteri similis. Verumtamen primum defendit Dyonisius, x Cyrillus, quem regulariter sequitur undecimus. Hunc enim primum dicit seponere debuisse idem Dyonisius.'

¹¹¹ Berlin, MS Phill. 1833, fols 56^v–57^r: 'Haec omnia certiora faciet subiecta cyclorum descriptio penultimi videlicet atque ultimi necnon primi ita tamen si ipsum annum quo Benedictus pater ex hac vita migravit ab incarnatione Christi dxxx effeceritis.'

Abbo, the most important year in the construction of these tables was the date of Benedict's death, which, with the help of reliable historical sources, he could date to 530 VA. Abbo subsequently referred to other historiographies that contained obituary data for other saints contemporary with Benedict. He mentioned, for example, Gregory of Tours (d. 594), who had noted at the end of his *Historia Francorum* that Martin of Tours (d. 397) had died in the year AP 412.¹¹² Using the chronicle of pseudo-Fredegarius, Abbo next counted 112 years from the death of Martin of Tours to the death of Clovis (d. 511).¹¹³ From all of this he concluded that 445 years had passed between Christ's Birth to the death of Martin of Tours (AP 412 + 33 = AD 445) and he implicitly dated the death of Clovis in 557.¹¹⁴ This calculation, however, put Abbo out of line with historical reality by nearly half a century.

Abbo next compared these data to the chronicle of Isidore of Seville (d. 636). There he read among other things that the fourth regnal year of Emperor Honorius (d. 423) was to be equated with the year 412.¹¹⁵ Moreover, Isidore also reported that Emperor Anastasius (d. 518) began his reign in 492, in Clovis's lifetime.¹¹⁶ In

¹¹² Berlin, MS Phill. 1833, fol. 57^r: 'Nam historiographi quo tempore quisque sanctorum vixerit suis declarant indiculis, sicut Gregorius Turonensis qui refert beatum Martinum Turonorum episcopum transisse de hoc mundo a passione, immo potius ab incarnatione Domini ccccxii.' See also Gregory of Tours, *Historia Francorum*, 10:19, in Gregory of Tours, *Historiae*, trans. by Fik J. A. M. Meijer and others, Ambo-Olympus (Baarn, 1994).

¹¹³ Berlin, MS Phill. 1833, fol. 57^r: 'et a transitu sancti Martini usque ad transitum Chlodovei rursus computantur anni cxii, qui simul fiunt dxxiii'. See also pseudo-Fredegarius scholasticus, *Chronica*, ed. by Bruno Krusch, Monumenta Germaniae Historica, Scriptores rerum Merovingicarum, 2 (Hannover, 1888), pp. 1–168, ch. 73.

¹¹⁴ Berlin, MS Phill. 1833, fol. 57^r: 'Quam supputationem si secundum Gregorium a passione Domini tenere volueris, in transitu sancti Martini ab incarnatione Domini impleti sunt ccccxlv anni quoniam Christus xxxiii anno est passus.'

¹¹⁵ Berlin, MS Phill. 1833, fol. 57^r: 'Denique cum Archadius et Honorius prius simul sub patre Theodosio regnaverint, postea tamen sigillatim regnaverunt Archadius annis xiii et Honorius xv, cuius quarto anno impleti sunt anni ab incarnatione Domini ccccxii iuxta chronicam Isidori.' The data reported here are not to be found in the original version of Isidore's chronicle. The explicit reference, however, makes one suspect that Abbo possessed a version containing interpolations. Incidentally, Abbo does not mention here the important passage in Gregory of Tours, in which it is clearly stated that Martin of Tours died in the second regnal year of the emperor Honorius: Gregory of Tours, *Historia Francorum*, 1:43.

¹¹⁶ Berlin, MS Phill. 1833, fol. 57^r: 'Anastasius quoque ccccxii regnare coepit qui fuit temporibus Chlodovei regis.'

this way Abbo wished to present a new chronographical contradiction to his pupils without offering a solution for it.¹¹⁷

Table 17

	<i>AP</i>	<i>AD</i>	<i>Isidore's Chronicle</i>
† Martin	AP 412	AD 445	At the time of Honorius (AD 408–23)
† Clovis	AP 524	AD 557	First regnal year of Anastasius (AD 492)

At the end of his letter, Abbo once again formulated his chronological correction of twenty-one years based on the cyclic nature of a 532-year luni-solar cycle. In this way the year 565 VA comprised the same chronological data as the date of Christ's Passion according to the gospel doctrine (33 VA).¹¹⁸ In so doing he made a second, almost imperceptible alteration. After all, in his *Praefatio* (after 988) he had explicitly stated that Christ had died at the age of 34.¹¹⁹

'Cycli decemnovenales secundum fidem historiographorum' (515–71)

As he had done in his *Praefatio*, Abbo composed a number of accompanying tables of nineteen-year cycles. Only the Paris manuscript contains Abbo's original version of these tables. The two final nineteen-year cycles are here presented under the titles *Ultimus ciclorum Cyrilli talis esse debuit propter fidem euuangelii* (534–52) and *Primus ciclorum Dionisii talis esse debuit propter fidem euuangelii* (553–71).¹²⁰

¹¹⁷ Berlin, MS Phill. 1833, fol. 57^r: 'Is praelibatis de dissensione chronographorum nemo me priorum patrum sententiis praeiudicasse existimet, quem nullius felicitas torquet, sed qui deligam absque praeiudicio posterorum arbitrio delinquo.'

¹¹⁸ Berlin, MS Phill. 1833, fol. 57^r: 'Sicut enim dominica post vii dies prima ei dominicae similis est quae inter vii prima fuit, sic annus qui post dxxxii annos ei similis est in concurrentibus et epactis, atque paschalibus terminis, qui inter dxxxii annos primus exitit. Secundus quoque secundo, et tertius tertio, ac de reliquis eodem modo. Quapropter dlxv similis est xxxiii anno quo Christi celebrata est passio. Unde hortor vos filii karissimi, ut dlxv talem constituatis, qualem vos evangelica doctrina illum xxxiii fuisse ab ipsis cunabulis erudit.''

¹¹⁹ Berlin, MS Phill. 1833, fol. 45^v: 'Cum haec ita sint quaeritur de anno dominicae passionis qui a nativitate xxxiiii.'

¹²⁰ Paris, Bibliothèque nationale de France, MS lat. 5543, fols 23^v–24^r (Fleury?, 847). Because these tables were found in a primarily ninth- and tenth-century manuscript, Jones suspects that a correction to Dionysius's Incarnation era had been developed before Abbo's abbacy: Charles W. Jones, *Beda's Pseudepigrapha: Scientific Writings Falsely Attributed to Bede* (Ithaca, NY, 1939), p. 81. Landes suspects, however, that these tables were added in the course of the eleventh century: Richard Landes, 'A Libellus from St Martial of Limoges Written in the Time of Ademar of Chabannes (989–1034)', *Scriptorium*, 37 (1983), 178–205 (pp. 184–85 n. 25). The codicological composition of the manuscript confirms Landes's claim, because fols 23–24 indeed constitute a separate

After this Abbo added an extra nineteen-year cycle at the beginning (515–33), presumably to be able to include the date of Benedict's death in these tables, as well (530 VA). This also explains the altered titles, namely *Ultimus*, *Primus* and *Secundus ciclus decemnovalis talis esse debuit secundum fidem historiographorum*. According to this new and more ambiguous title, 553 VA is nevertheless not equated with the opening year of Dionysius's first nineteen-year cycle (AD 532), but rather with the opening year of his second nineteen-year cycle (AD 551). This is in direct opposition to Abbo himself.¹²¹

The different titles clearly show that Abbo constructed these tables based on a double set of criteria, namely the date of Christ's Passion (565 VA = 33 VA) on the one hand, and the date of Benedict's death (530 VA) on the other. In the year of Christ's Passion Easter Sunday fell on 27 March (luna xvii), which agreed with the gospel evidence and the Latin tradition. As second criterion Abbo turned to the reliable historiographical sources of Paul the Deacon and 'Faustus of Monte Cassino', from which he could deduce that Benedict had died on Easter Saturday, 21 March (luna xiv). (See Table 18a, Table 18b, and Table 18c.)

These three nineteen-year cycles are followed in most of the manuscripts by a brief exposition that explains how the tables are to be continued.¹²² This final

bifolium: Charles Samaran and Robert Marichal, *Catalogue des manuscrits et écriture latine portant des indications de date, de lieu ou de copiste*, 7 vols (Paris, 1959–84), II, 264. Moreover, Jones's claim is more difficult to defend on grounds of contents, because it was only in the last phase of his computistical theorizing that Abbo developed this chronological correction to the Dionysian era.

¹²¹ Berlin, MS Phill. 1833, fols 56^v–57^r: 'Unde annos dominicae incarnationis sursum versus contraximus, ut eundem primum cyclum a dliii non a dxxxii inchoaremus, et sic dlxv annum eidem tertiodécimo anno deputavimus [. . .]. Haec omnia certiora faciet subiecta cyclorum descriptio penultimi videlicet atque ultimi necnon primi ita tamen si ipsum annum quo Benedictus pater ex hac vita migravit ab incarnatione Christi dxxx effeceritis.'

¹²² Berlin, MS Phill. 1833, fol. 58^r: 'Sicut dictum est a primo et secundo, sic sequuntur reliqui ordine praepostero, ut sit tertius secundo similis, quartus tertio et per ordinem omnes eodem modo. Est autem initium tertii cycli dlxxii cum indictione xiiii. Initium quarti dxcii cum indictione iii. Initium quinti dcx cum indictione vii. Initium sexti d[c]xxviii cum indictione xi. Initium septimi dclxviii cum indictione iiiii. Initium octavi dclxvii cum indictione iiiii. Initium noni dclxxxvi cum indictione viii. Initium decimi dclx cum indictione xii. Initium undecimi cycli dclxxxiii cum indictione i. Initium duodecimi cycli dclxliii cum indictione v. Initium xiii cycli dclxliii cum indictione viii. Initium xiiii cycli dclxxxii cum indictione xiii. Initium xv cycli dccc cum indictione ii. Initium xvi cycli dcccxxviii cum indictione vi. Initium xvii cycli dcccxxviii cum indictione x. Initium xviii cycli.' The scribe stopped at this point, though presumably the original text continued up to and including the twenty-eighth and last nineteen-year cycle. We find the same codicological idiosyncrasies in Montpellier, MS Section Médecine 48, fol. 20^r (s. XI), and Vatican City, Biblioteca apostolica Vaticana, MS Reginensis latinus 1281, fol. 2^r (s. XII).

Table 18a. Ultimus xxviii cyclorum decemnouenarium, id est xxviii, talis esse debuit secundum fidem historio-graphorum

<i>Anni Domini</i>	<i>Indictiones</i>	<i>Aepactae</i>	<i>Concurrentes</i>	<i>Cyclus lunaris</i>	<i>XLIII luna</i>	<i>Dominica paschae</i>	<i>Luna ipsius diei</i>
dxv	ii	nichil	v	xvii	Non. Apr.	iiii Id. Apr.	xviii
dxvi	iii	xi	vi	xviii	viii Kal. Apr.	vii Kal. Apr.	xv
dxvii	iiii	xxii	i	xviiii	Id. Apr.	xviii Kal. Mai.	xv
dxviii	v	iii	ii	i	iiii Non. Apr.	viii Id. Apr.	xviii
dxviiii	vi	xiii	iii	ii	xi Kal. Apr.	iiii Kal. Apr.	xxi
dxix	vii	xxv	iiii	iii	iiii Id. Apr.	iii Id. Apr.	xv
dxxi	viii	vi	vi	iiii	iii Kal. Apr.	iiii Non. Apr.	xvii
dxxii	viiii	xvii	vii	v	xiiii Kal. Mai.	x Kal. Mai.	xviii
dxxiii	x	xxviii	i	vi	vii Id. Apr.	xviii Kal. Mai.	xxi
dxxiiii	xi	viii	ii	vii	vi Kal. Apr.	iii Kal. Apr.	xvii
dxxv	xii	xx	iiii	viii	xvii Kal. Mai.	xiiii Kal. Mai.	xvii
dxxvi	xiii	i	v	viiii	ii Non. Apr.	iiii Id. Apr.	xx
dxxvii	xiiii	xii	vi	x	viii Kal. Apr.	vii Kal. Apr.	xvi
dxxviii	xv	xxiii	vii	xi	ii Id. Apr.	xvii Kal. Mai.	xvii
dxxviiii	i	iiii	ii	xii	Kal. Apr.	viii Id. Apr.	xix
dxxx	ii	xv	iii	xiii	xii Kal. Apr.	xi Kal. Apr.	xv
dxxxi	iii	xxvi	iiii	xiiii	v Id. Apr.	iii Id. Apr.	xvi
dxxxii	iiii	vii	v	xv	iiii Kal. Apr.	iiii Non. Apr.	xviii
dxxxiii	v	xviii	vii	xvi	xv Kal. Mai.	x Kal. Mai.	xix

Table 18b. Primus ciclus decemnouenalis xxviii° per omnia similis excoeptris indictionibus et annis christi

<i>Anni Domini</i>	<i>Indiciones</i>	<i>Aepactae</i>	<i>Concurrentes</i>	<i>Cyclus lunaris</i>	<i>XVIII luna</i>	<i>Dominica paschae</i>	<i>Luna ipsius diei</i>
dxxxiii	vi	nichil	i	xvii	Non. Apr.	vii Id. Apr.	xvi
dxxxv	vii	xi	ii	xviii	viii Kal. Apr.	iii Kal. Apr.	xviii
dxxxvi	viii	xxii	iii	xviii	Id. Apr.	xiii Kal. Apr.	xx
dxxxvii	viii	iii	v	i	iiii Non. Apr.	iii Non. Apr.	xv
dxxxviii	x	xiii	vi	ii	xi Kal. Apr.	vii Kal. Apr.	xviii
dxxxviiii	xi	xxv	vii	iii	iiii Id. Apr.	xvii Kal. Mai.	xviii
dxi	xii	vi	i	iiii	iii Kal. Apr.	ii Kal. Apr.	xv
dxi	xiii	xvii	iii	v	xiii Kal. Mai.	xiii Kal. Mai.	xv
dxi	xiii	xxviii	iiii	vi	vii Id. Apr.	iii Id. Apr.	xviii
dxi	xv	viii	v	vii	vi Kal. Apr.	iii Non. Apr.	xxi
dxi	i	xx	vi	viii	xvii Kal. Mai.	xvi Kal. Mai.	xv
dxi	ii	i	i	viii	ii Non. Apr.	vii Id. Apr.	xvii
dxi	iii	xii	ii	x	viii Kal. Apr.	iii Kal. Apr.	xx
dxi	iii	xxiii	iii	xi	ii Id. Apr.	xiii Kal. Mai.	xxi
dxi	v	iii	iiii	xii	Kal. Apr.	ii Non. Apr.	xvii
dxi	vi	xv	vi	xiii	xii Kal. Apr.	vii Kal. Apr.	xviii
dxi	vii	xxvi	vii	xiii	v Id. Apr.	xvii Kal. Mai.	xx
dxi	viii	vii	i	xv	iiii Kal. Apr.	ii Kal. Apr.	xvi
dxi	viii	xviii	ii	xvi	xv Kal. Mai.	xii Kal. Mai.	xvii

Table 18c. Secundus ciclus decemnovenalis primo per omnia similis excoeptis indictionibus et annis christi

<i>Anni Domini</i>	<i>Indictiones</i>	<i>Aepactae</i>	<i>Concurrentes</i>	<i>Cyclus lunaris</i>	<i>XIII luna</i>	<i>Dominica paschae</i>	<i>Luna ipsius diei</i>
dlīi	x	nīchil	īīī	xvī	Non. Apr.	īīī Id. Apr.	xx
dlīīī	xī	xī	v	xvīī	vīīī Kal. Apr.	vi Kal. Apr.	xvi
dlv	xīī	xxīī	vi	xvīīī	Id. Apr.	xvi Kal. Mai.	xvīī
dlvi	xīīī	īīī	vīī	i	īīī Non. Apr.	vi Id. Apr.	xx
dlvīī	xīīīī	xīīīī	īī	īī	xī Kal. Apr.	x Kal. Apr.	xv
dlvīīī	xv	xxv	īīī	īīī	īīīī Id. Apr.	īī Id. Apr.	xvi
dlvīīīī	i	vi	īīīī	īīīī	īīī Kal. Apr.	īī Non. Apr.	xvīīī
dlx	īī	xvīī	v	v	xīīīī Kal. Mai.	vīīīī Kal. Mai.	xx
dlxi	īīī	xxvīīī	vīī	vi	vīī Id. Apr.	vi Id. Apr.	xv
dlxīī	īīīī	vīīīī	i	vīī	vi Kal. Apr.	īīīī Kal. Apr.	xvīīī
dlxīīī	v	xx	īī	vīīī	xvīīī Kal. Mai.	xīīīī Kal. Mai.	xvīīīī
dlxīīīī	vi	i	īīī	vīīīī	īī Non. Apr.	Non. Apr.	xv
dlxv	vīī	xīī	v	x	vīīīīī Kal. Apr.	vi Kal. Apr.	xvīī
dlxvi	vīīī	xxīīī	vi	xī	īī Id. Apr.	xvi Kal. Mai.	xvīīī
dlxvīī	vīīīī	īīīī	vīī	xīī	Kal. Apr.	vi Id. Apr.	xxī
dlxvīīī	x	xv	i	xīīī	xīīīī Kal. Apr.	vīīīīī Kal. Apr.	xvīīī
dlxvīīīī	xī	xxvi	īīī	xīīīī	v Id. Apr.	īī Id. Apr.	xvīīīī
dlxx	xīī	vīī	īīīī	xv	īīīīī Kal. Apr.	īī Non. Apr.	xx
dlxxi	xīīī	xvīīī	v	xvi	xv Kal. Mai.	vīīīīī Kal. Mai.	xxī

section demonstrates how Abbo viewed his correction of twenty-one years as a fully fledged alternative to the faulty Incarnation era of Dionysius Exiguus.

A Correction of Twenty-one Years (12 AD = 33 VA)

Just as he had done in his *Prologus de ciclo magno paschae*, Abbo joined the Septuagint era (AM 5199) with a 532-year Dionysian cycle and dated the year of Creation to the 149th year of this 532-year cycle (AM 1 = 149/532). It followed from this that the date of Christ's Birth (AM 5199 = 27/532) did not agree with that given in Dionysius's Incarnation era (2/532). Next Abbo went in search of the date of Christ's Passion. For this he depended on the gospel evidence and the Latin tradition, which held that Christ was resurrected on 27 March (luna xvii). This time Abbo did dare to complete his calculation. He found such an Easter date in the thirteenth year of a Dionysian 532-year cycle (AD 12 = 33 VA).

With this chronological correction of twenty-one years in hand, he next looked for the year in which Benedict died on Easter Saturday (luna xiv). These computational particulars did indeed occur in the year 530 VA (AD 509), which Abbo regarded as a second proof that Dionysius's Incarnation era should be abandoned. That the collation of the date of Christ's Passion and the date of Benedict's death was possible depended upon a fortunate concurrence of circumstances. It is striking just how confident Abbo was at this juncture, given the fact that he explicitly wrote that he was contradicting the authority of such an esteemed author.¹²³

Presumably Abbo looked for a third proof, for at the end of his letter he turned to the issue of the year of Martin of Tours's death. The chronographical data concerning this event did not confirm his theory, however, and ultimately Abbo left it to a future generation of computists to find a solution for it. He closed his letter with the wish that his fellow brethren, Geraldus and Vitalis, should recognize the date of Christ's Passion according to the gospel doctrine (AD 12 = 33 VA).

The Fourth Phase (1004)

'Laterculus posterior' (Berlin version)

See Table 19.

¹²³ Berlin, MS Phill. 1833, fol. 56^v: 'Nec id dicens auctoritatem tanti viri refello, sed historiarum et evangeliorum fidei quod Adam reverentia magis assensum praebeo.'

'Epistola secunda ad Geraldum et Vitalem'

Approximately a year later Abbo wrote a sequel to his letter to Geraldus and Vitalis. This *Epistola secunda* functions in fact as a systematic commentary on Abbo's *Laterculus posterior*, a revised version of his *Laterculus anterior* of four years before.¹²⁴ At the beginning of this letter Abbo again takes up the thread of the dating of Christ's Passion in a 532-year Dionysian cycle (AD 12 = 33 VA).¹²⁵ Based on the gospel evidence and the Latin tradition, he subsequently fixed the date of Christ's Passion to the year in which the Paschal term fell on Thursday 24 March.¹²⁶ Abbo derived this information from Bede's *De temporum ratione* (ch. 47) and noted thereby that Bede had without any objection granted permission to unravel this 'obscure' question.¹²⁷

In answer to this call for a solution, Abbo offered his *Laterculus posterior*, in which he calculated the years according to a double Incarnation era and according to a double Creation era.¹²⁸ In the first column Abbo gave the years according to Dionysius (AD), and in the second column he counted the years according to his own corrected reckoning (VA).¹²⁹ Contrary to Dionysius Exiguus, Abbo followed the gospel verity.¹³⁰ He dated the Passion of Christ to the thirteenth year of a

¹²⁴ See above, the section on 'The Second Phase (1000): *Laterculus anterior* (Berne version)'.

¹²⁵ Berlin, MS Phill. 1833, fol. 58^r: 'Vestra caritas fratres karissimi me compellit enodare questunculam diu quidem ventilatam sed nec dum ab aliquo absolutam de anno dominicae passionis seu resurrectionis, quem dyonysius in suis circulis, ita annotare debuit ut dlxv ab incarnatione domini annus xxxiii, qui est xxviii imperii tiberii cesaris annus, per convientiam solis et lunae et conveniret, eosdem concurrentes praefereus, easdem epactas habens, eundem paschalem terminum contingens.'

¹²⁶ Berlin, MS Phill. 1833, fol. 58^r: 'Siquidem xxxiii iuxta evangeliorum historiam luna paschae fuit xiiii in feria v atque ut quam plurimis catholicae auctoritatis viris placuit viiii kal. apr. ipsa feria v occurrit.'

¹²⁷ Berlin, MS Phill. 1833, fol. 58^r: 'Testatur id Beda venerabilis presbyter in libro de temporibus capitulo xlvii, qui obscuritate ipsius quaestionis fatigatus, posteri enodandi licentiam tribuit absque ullo supercilio.'

¹²⁸ Berlin, MS Phill. 1833, fol. 58^r: 'Qua propter hic unum laterculum indidi, suppliciter habentem annos domini, et annos ab origine mundi.'

¹²⁹ Berlin, MS Phill. 1833, fol. 58^r: 'Sed annorum Domini ordo alter est secundum Dyonysium, alter secundum meae parvitatatis ingeniolium.' It is striking that in this letter Abbo describes the corrected reckoning in very humble terms as the product of his own blinkered insignificance, whereas in his *Laterculus posterior* he uses a more self-confident description (*verior assertio*).

¹³⁰ Berlin, MS Phill. 1833, fol. 58^r: 'Et in meo quidem secutus sum evangelica doctrinam de passione Christi, quo xiiii annus cycli decemnovenalis communicat anno xxi cycli solaris, fugiendo errorem alterius laterculi qui de hac re veritati evangelii contradicit.'

Table 19

<i>Dyonisii ordo</i>		<i>Uerior assertio</i>		17	18	19	1	2	3	4	5	6
<i>Anni Dom.</i>	<i>Indic.</i>	<i>Anni Dom.</i>	<i>Indic.</i>	1	2	3	4	5	6	7	8	9
1045	13	1066	4	1	2	3	5.	6	7	1	3.	4
1064	2	1085	8	4.	⑤	6	7	2.	3	4	5	7.
1083	6	1104	12	6	1.:	2	3	4	6.	7	1	2
1102	10	1123	1	2	3	5.	6	7	1	3.	4	5
1121	14	1142	5	5	6	7	2.	3	4	5	7.	1
1140	3	1161	9	1.:	2	3	4	6.	7	1	2	4.
1159	7	1180	13	3	5.	6	7	1	3.	4	5	6
1178	11	1199	2	6	7	2.	3	4	5	7.	1	2
1197	15	1218	6	2	3	4	6.	7	1	2	4.	5
1216	4	1237	10	5.	6	7	1	3.	4	5	6	1.:
1235	8	1256	14	7	2.	3	4	5	7.	1	2	3
1254	12	1275	3	3	4	6.	7	1	2	4.	5	6
1273	1	1294	7	6	7	1	3.	4	5	6	1.:	2
1292	5	1313	11	2.	3	4	5	7.	1	2	3	5.
1311	9	1332	15	4	6.	7	1	2	4.	5	6	7
1330	13	1351	4	7	1	3.	4	5	6	1.:	2	3
1349	2	1370	8	3	4	5	7.	1	2	3	5.	6
1368	6	1389	12	6.	7	1	2	4.	5	6	7	2.
1387	10	1408	1	1	3.	4	5	6	1.:	2	3	4
1406	14	1427	5	4	5	7.	1	2	3	5.	6	7
1425	3	1446	9	7	1	2	4.	5	6	7	2.	3
1444	7	1465	13	3.	4	5	6	1.:	2	3	4	6.
1463	11	1484	2	5	7.	1	2	3	5.	6	7	1
1482	15	1503	6	1	2	4.	5	6	7	2.	3	4
1501	4	1522	10	4	5	6	1.:	2	3	4	6.	7
988	1	1009	6	7.	1	2	3	5.	6	7	1	3.
1007	5	1028	11	2	4.	5	6	7	2.	3	4	5
1026	9	1047	15	5	6	1.:	2	3	4	6.	7	1
Inter utramque summam anno- rum Domini est ubique indif- ferentia xxi	Aepactae			Nichil	11	22	3	14	25	6	17	28
	Termini paschales			Apr.	Apr.	Apr.	Apr.	Apr.	Apr.	Apr.	Mai.	Apr.
				Non.	viii Kal.		iiii Id.	xi Kal.	iiii Id.	iii Kal.	xiii Kal.	vii Id.
	Regulares			5	1	6	2	5	3	6	4	7

7	8	9	10	11	12	13	14	15	16			
10	11	12	13	14	15	16	17	18	19		<i>lxx interpretes</i>	<i>Hebraica ueritas</i>
5	6	1.:	2	3	4	6.	7	1	2	1	6262	5015
1	2	3	5.	6	7	1	3.	4	5	2	6281	5034
4.	5	6	7	2.	3	4	5	7.	1	3	6300	5053
6	1.:	2	3	4	6.	7	1	2	4.	4	6319	5072
2	3	5.	6	7	1	3.	4	5	6	5	6338	5091
5	6	7	2.	3	4	5	7.	1	2	6	6357	5110
1.:	2	3	4	6.	7	1	2	4.	5	7	6376	5129
3	5.	6	7	1	3.	4	5	6	1.:	8	6395	5148
6	7	2.	3	4	5	7.	1	2	3	9	6414	5167
2	3	4	6.	7	1	2	4.	5	6	10	6433	5186
5.	6	7	1	3.	4	5	6	1.:	2	11	6452	5205
7	2.	3	4	5	7.	1	2	3	5.	12	6471	5224
3	4	6.	7	1	2	4.	5	6	7	13	6490	5243
6	7	1	3.	4	5	6	1.:	2	3	14	6509	5262
2.	3	4	5	7.	1	2	3	5.	6	15	6528	5281
4	6.	7	1	2	4.	5	6	7	2.	16	6547	5300
7	1	3.	4	5	6	1.:	2	3	4	17	6566	5319
3	4	5	7.	1	2	3	5.	6	7	18	6585	5338
6.	7	1	2	4.	5	6	7	2.	3	19	6604	5357
1	3.	4	5	6	1.:	2	3	4	6.	20	6623	5376
4	5	7.	1	2	3	5.	6	7	1	21	6642	5395
7	1	2	4.	5	6	7	2.	3	4	22	6661	5414
3.	4	5	6	1.:	2	3	4	6.	7	23	6680	5433
5	7.	1	2	3	5.	6	7	1	3.	24	6699	5452
1	2	4.	5	6	7	2.	3	4	5	25	6186	4939
4	5	6	1.:	2	3	4	6.	7	1	26	6205	4958
7.	1	2	3	5.	6	7	1	3.	4	27	6224	4977
2	4.	5	6	7	2.	3	4	5	7.	28	6243	4996
9	20	1	12	23	4	15	26	7	18	Inter utramque summam est ubique indifferentia mccxlvii		
Apr.	Mai.	Apr.	Apr.	Apr.	Apr.	Apr.	Apr.	Apr.	Mai.			
vi Kal.	xvii Kal.	ii Non.	viii Kal.	ii Id.	Kal.	xii Kal.	v Id.	iiii Kal.	xv Kal.			
3	1	4	7	5	1	4	2	5	3			

nineteen-year lunar cycle and to the twenty-first year of a twenty-eight-year solar cycle. This combination occurred just once in a 532-year luni-solar cycle, namely in the thirteenth year ($13/19 + 21/28 = 13/532$).

Abbo also addressed the second component of his chronological correction, namely the date of Benedict's death. Based on reliable historiographical sources, he again concluded that Benedict died in 530 VA (AD 509).¹³¹ In this letter, however, Abbo once again takes things a step further. He projected his chronological correction onto the present, as well, by positing that twenty-one years should be added consistently to each and every year.¹³² Abbo next repeated his suspicion that over the past 1000 years twenty-one years must have been lost due to some chronological carelessness.¹³³ The error could be readily corrected, however, by adding twenty-one years to each Dionysian year.¹³⁴

This discrepancy between the two Incarnation eras extended as well to the accompanying indiction numbers.¹³⁵ The indiction number in the corrected era was namely six units higher (+6) or nine units lower (-9) than in Dionysius's. The date itself differed consistently by twenty-one years (+21), so that in the corrected reckoning the year AD 1004 became 1025 VA.¹³⁶ Although the years were indicated differently, there was no difference in their position in a lunar nineteen-year cycle or a solar twenty-eight-year cycle.¹³⁷ The Dionysian rules of thumb or *argumenta* for this were

¹³¹ Berlin, MS Phill. 1833, fol. 58^r: 'Nec hoc discrepare feci a romana istoria quae refert beatissimum patrem Benedictum monachorum legislatorem discretissimum floruisse post annum ab incarnatione dxxviii, cum sequenti anno, id est dxxx talis occurrit festivitas paschalis, qualem descripsit Faustus fuisse in transitu eiusdem piissimi patris.'

¹³² Berlin, MS Phill. 1833, fol. 58^{r-v}: 'Quoniam vero Deo iuvante invenimus concordiam praetitorum temporum, restat ostendere quae sit concordia praesentium cum annuis successibus ad solitam summam annorum Domini adduntur xxi.'

¹³³ Berlin, MS Phill. 1833, fol. 58^r: 'Hic autem numerus per spatium mille annorum hic vel illic relictus deperiit, cum imperatorum sive regum alter alteri successit.'

¹³⁴ Berlin, MS Phill. 1833, fol. 58^v: 'Quo scilicet numero praedictae annorum christi summae annuatim adiecto, in reliquis nihil impedit, quoniam ipsem lineam quam universalis aecclesia tenet, totus simul numerus attingit.'

¹³⁵ Berlin, MS Phill. 1833, fol. 58^v: 'De indictionibus quoque varietas subrepat, eo quod annuatim vi vel viii supercrescunt indictionibus solitis.'

¹³⁶ Berlin, MS Phill. 1833, fol. 58^v: 'Igitur huiusmodi anni Domini sunt m et xxv quoniam alibi videntur i et iiii existere.'

¹³⁷ Berlin, MS Phill. 1833, fol. 58^v: 'Ceterum illa maior summa annorum Domini in nostra moderna descriptione ad eundem annum cycli xviii ad eundem annum cycli solaris pervenit, ad quem minor summa in descriptione veteri.'

identical for both eras.¹³⁸ At the same time Abbo noted that in the corrected era sixty-seven fifteen-year indiction cycles had already passed, one more than in Dionysius.¹³⁹ From this systematic analysis we may once again deduce that Abbo regarded his corrected era (VA) as a fully fledged alternative to Dionysius's Incarnation era (AD).

Subsequently Abbo referred to the Creation eras in the right-hand columns of his *Laterculus posterior*.¹⁴⁰ Just as they had done in his *Laterculus anterior*, the numbers on the right referred to the nineteenth and final year of each row (19/19). One of the columns is based on the Eusebian Creation era according to the Septuagint (AM 5199); the other gives the Bedan Creation era according to the so-called Hebrew verity (AM 3952). In this way the years in this 532-year table are reckoned in fourfold fashion, namely AD 988–1519 in Dionysian years, 1009–1540 VA in Abbonian years, AM 6168–6699 according to the Eusebian Septuagint era, and finally AM 4921–5452 according to the Hebrew verity. The first three nineteen-year cycles (AD 988–1044), however, are to be found at the bottom. This idiosyncrasy has led some scholars to mistakenly suggest that the *Laterculus* is incomplete.¹⁴¹ The explanation is probably the fact that Abbo wanted to begin his table with the *positio naturalis* of the concurrent number, that is, with the first year of a twenty-eight-year cycle of concurrents. (1 - 2 - 3 - 5 - ...).

Next Abbo also refers in this letter to the ninety-five-year 'Cyrillian' cycle.¹⁴² He observes again that the first year of Dionysius (9/28) does not match

¹³⁸ Berlin, MS Phill. 1833, fol. 58^v: 'Rursus de utraque summa oportet m et ii subtrahere et quod reliquum est, si potest fieri, per xv partiri ut sciamus indictionem cuiusque anni. Et pro solaris cycli uno quoque anno minori summa annorum domini adde unum, deinde subtrahe m et quod remanserit, si potest fieri, per xxviii partire.' See also Dionysius Exiguus, *Argumenta paschalia*, ed. by Krusch, in *Studien zur christlichmittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, pp. 75–81 (p. 76).

¹³⁹ Berlin, MS Phill. 1833, fol. 58^v: 'Sunt quoque in maiori summam ordines indictionum lxxvii, in minore lxvi.' The calculation is correct for the Dionysian years, because the sixty-sixth indiction cycle ended in 990 and the sixty-seventh only after the composition of this letter, namely in 1005. The calculation is wrong, however, for Abbo's corrected era, because in 1025 VA (AD 1004) sixty-eight fifteen-year indiction cycles had already passed.

¹⁴⁰ Berlin, MS Phill. 1833, fol. 58^v: 'Nec hac varietate turbemini quandoquidem dupliciter computantur anni ab origine mundi, et dupliciter recitatur genealogi Christi.'

¹⁴¹ Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', p. 156, and Cordoliani, 'Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon', p. 467.

¹⁴² Berlin, MS Phill. 1833, fol. 58^v: 'Quod vero post finem cyclorum sancti Cyrilli Dionysius, vi annos solares reliquit, illud indicat quod quod secundo anno cycli solaris, ille suos v cyclos terminavit, hic autem viiii eiusdem cycli solaris anno suos inchoavit. Denique haec atque quando

up with the last year of 'Cyril' (2/28) and that consequently six solar years are lacking. Therefore Abbo interpreted this ninety-five-year cycle in his *Laterculus* as the five nineteen-year cycles for the period AD 1159–1253 (AD 627–721).¹⁴³ Abbo still struggled with this irrelevant problem and this time arrived at the conclusion that these six solar years were part of the twenty-one years missing in the Dionysian Incarnation era.¹⁴⁴

This reasoning brought Abbo to the actual core of his second letter to Geraldus and Vitalis. Dionysius Exiguus should not have replaced the year 248 after Diocletian with the year 532, but rather with the year 553 following the Birth of Christ (AD 532 = 553 VA).¹⁴⁵ Moreover, Dionysius should have begun his cycle with the third year (3/28) and thus not with the ninth year (9/28) of a twenty-eight-year solar cycle.¹⁴⁶ Because the Paschal term in the putative year of the Lord's Passion (AD 33) did not fall on a Thursday, Abbo went so far as to call the Incarnation era of Dionysius Exiguus worthless.¹⁴⁷

coeperit vel quando finierit, in praefatione suorum cyclorum idem vir ostendit. Qui etiam sint cycli sancti cyrilli, invenire potestis in libris aethymologiarum ysidori, ubi per xcv annos directi notatur dominica paschae cum luna ipsius diei, et in nostro laterculo sub hoc signo. Quorum videlicet cyclorum ultimum dyonysius fatetur semper posuisse suis cyclis, eo quod de eodem vi adhuc superessent anni. Horumque annorum ultimum diem fuisse ab imperio dyocleciani ccxlvii seu ccxlviii eiusdem tyranni potius quam principis anno cyclica scribere subsecutus.'

¹⁴³ We find the same interpretation in Abbo's *Laterculus anterior*.

¹⁴⁴ Berlin, MS Phill. 1833, fol. 58^v: 'Quodque sit absurdum vi ut dictum est solares anni post ccxlvii intermissi faciunt manifestum quos fortassis pro his neglexit quorum inertionem eo loci habuit, ubi non extra sed intra cyclum ultimum vi superesse demonstravit.'

¹⁴⁵ Berlin, MS Phill. 1833, fol. 58^v: 'Eundem enim imperatoris ccxlviii constituit esse dominicae incarnationis dxxxii cum debuerit ponere dliiii.'

¹⁴⁶ Berlin, MS Phill. 1833, fol. 58^v: 'Pro solaris quoque cycli anno tertio, posuit eiusdem cycli annum viiiium ut decimus sub subsequens conveniat dxxxii, qui habetur apud eum pro dominicae incarnationis anno primo.'

¹⁴⁷ Berlin, MS Phill. 1833, fol. 58^v: 'Verumtamen huiusmodi supputationem esse frivolum dominicae passionis paschalis luna manifestat, quae ab incarnatione xxxiii non provenit in feria v. Nam sive x kal. apr. sive viiii kal. eiusdem mensis traditio Domini Ihesu Christi falsa sit, non enim alio calendario contigit, certum est quod tunc temporis luna paschae xiiii in v feria extitit, quae nunc dicitur coena Domini.' By the term luna *paschalis* Abbo does not mean the Paschal moon (luna i), but rather the Paschal term (luna xiv). It is striking that Abbo here departs somewhat from the Latin tradition, because according to him it was possible that the Last Supper could also have taken place on 23 March. We find no trace of this ambiguity in either his *Praefatio ad cyclos paschales* or his *Epistola prima ad Geraldum et Vitalem*: 'licet catholica fides habeat post peractam coenam feria v traditum, et xv luna feria vi crucifixum' (Berlin, MS Phill. 1833, fol. 45^v), and

Finally, Abbo mentions as well the old Gallic tradition that Easter was to be celebrated without fail on 25 March.¹⁴⁸ This tradition was based on the belief that Christ died on Friday 23 March, the day on which God had created the first man.¹⁴⁹ In this rather abrupt manner Abbo ends his letter. He does not so much as mention the Greek tradition, which also held that Christ had risen on 25 March (luna xvii). Abbo could easily have found this information in Bede's *De temporum ratione* (ch. 47 and ch. 66).

The *Laterculus posterior* proper is also provided with a brief explanatory commentary. The three brackets pertain, in descending order, to the date of Christ's Passion (1097 VA = 33 VA), the date of the Creation of the world (149/532) and the date of the death of Benedict (1062 VA = 530 VA).¹⁵⁰ The circle indicates the date of Christ's Birth according to Dionysius (AD 1065 = AD 1) and the triangle indicates the date of Christ's Birth according to Abbo's reckoning (1065 VA = 1 VA).¹⁵¹ Moreover, Abbo pointed out that both Incarnation eras had already

'Paschalem autem festivitatem eo anno quo Christus natus est ab re est inquirere, sed abhinc xxxiii vel potius xxxiiii non est inutile, quandoquidem iuxta evangeliorum fidem Christus luna xiiii est traditus; luna xv crucifixus, luna xvi requieuit in sepulchro, luna xvii resurrexit a mortuis. Quo vero kalendario id actum sit, non evangeliorum historia, sed antiquorum patrum opinio palam fecit, quia a viiii kal. apr. in vi kal. eiusdem mensis idem tempus extendit, a feria videlicet v in dominicam' (Berlin, MS Phill. 1833, fol. 56').

¹⁴⁸ Berlin, MS Phill. 1833, fol. 58': 'Quod autem antiquitus Galliarum aecclesia viii kal. apr. semper resurrectionem Domini celebravit, ex ea auctoritate processit qua xi kal. apr. in vita sabbati creditur Dominus crucifixus, ut eo kalendario hominem redimeret quo primum hominem de limo terra formasset.' In the Berlin manuscript we read the erroneous *xi kalendarum aprilis* (22 March) instead of *x kalendarum aprilis* (23 March).

¹⁴⁹ According to Abbo, God created the world on Sunday 18 March, i.e. the day on which the sun rose into the constellation of the Ram, according to the old Julian calendar. Consequently, the first man was created on the sixth day, namely 23 March. See above, the section on 'The Third Phase (1003): *Epistola prima ad Geraldum et Vitalem*'.

¹⁵⁰ Berlin, MS Phill. 1833, fol. 60': 'Tres circa concurrentes quadranguli designant primus annus dominicae passionis, secundus caput saeculi id est annus quo factus est mundus, tertius obitum Benedicti patris.'

¹⁵¹ Berlin, MS Phill. 1833, fol. 60': 'Porro quae est apud Dyonisium in circulo, hic sub triangulo est Christi incarnatio, quoniam ipse est initium et finis magni cycli qui constat dxxxii annis.' It is striking that Abbo fixed the difference between the two reckonings using the date of Christ's Incarnation, whereas his chronological correction is based mainly on the computistical parameters of the date of Christ's Passion.

surpassed the crucial year 1000.¹⁵² In similar fashion the Eusebian Septuagint era (AM 5199) had surpassed the historically important year 6000.

Conclusion

The Search for a Definitive Alternative

Abbo's wrestling with the Incarnation era of Dionysius Exiguus was a process of asking questions, arriving at partial answers, asking new questions, and exploring different domains of thought. He sought a definitive solution for the ironic statement in Bede's *De temporum ratione* (ch. 47). After all, the disparity between Dionysius's Incarnation era and a Dionysian 532-year cycle went against his conception of science as the intelligible product of God's Creation.

The first result was the *Praefatio ad cyclos paschales* (post-988). Despite the use of computistical arguments, in this case the luni-solar functionality of a 532-year cycle, in his *Praefatio* Abbo fell back on a chronographical solution. He used the chronicle by Eusebius-Jerome and, based on the reported Olympiads, he counted 535 years from Christ's Birth up to and including the first year of a 532-year Dionysian cycle (AD 532 = 535 VA). This chronographical intervention did indeed produce the desired chronological result, because the date of Christ's Passion (34 VA) was thus moved forward to the thirteenth year of a nineteen-year cycle, the only year in the cycle with a Paschal term falling on 24 March (luna xiv).

In the year 1000 Abbo wrote a *Prologus de ciclo magno paschae* and a first version of his 532-year table of concurrents (*Laterculus anterior*). His primary aim was to find an acceptable way to fix the date of the Creation of the world, the dates of Christ's Birth and Passion, and the date of Benedict's death in a 532-year luni-solar cycle. Abbo found the solution for the date of the Creation of the world (149/532) and for the date of Christ's Passion (513/532), but the two remaining dates proved problematic. Abbo did not succeed in fitting the date of Benedict's death into his *Laterculus anterior*. Moreover, the date of Christ's Birth according to Septuagint reckoning (AM 5199 = 27/532 = AD 26) did not accord with Dionysius's Incarnation era (2/532 = AD 1).

¹⁵² Berlin, MS Phill. 1833, fol. 60^r: 'Habet autem hinc annos Domini dupliciter a mille ulterius, inde secundum lxx interpretes annos ab origine mundi post ūi crescentes et hebraica veritas deinceps.'

In his *Epistola prima ad Geraldum et Vitalem* (1003) Abbo once again established that Christ must have been born in AD 26 (AM 5199 = 27/532), which was in clear contradiction of the Dionysian Incarnation era (2/532 = AD 1). But Abbo found new support in the date of Christ's Passion. The chronological characteristics of Christ's Passion according to the Latin tradition were after all readily found in 13/532 (AD 12 = 33 VA), and Abbo could also apply this correction of twenty-one years to the date of Benedict's death. As long as he converted the year AD 509 to his corrected reckoning (530 VA), then he was in compliance with the historiographical imperative that Benedict must still be alive in AD 529. Abbo's chronological correction of twenty-one years was thus based not solely on the Gospels (*propter fidem evangelii*), but on historiographical sources as well (*secundum fidem historiographorum*). For a brief moment Abbo was in danger of creating further problems for himself when he sought new confirmation of his theory in the date of Martin of Tours's death (d. 397).

In the end Abbo decided to leave this final problem untouched. In his *Epistola secunda ad Geraldum et Vitalem* (1004) he systematically developed his correction of twenty-one years into a fully fledged alternative to the Dionysian era.

Like his *Ephemerida*, Abbo's *Laterculus posterior* is salient illustration of his creative capacity to put down a tremendous amount of information on a single folium. The consistent difference of twenty-one years between the Dionysian and the Abbonian cycles became a fully fledged parallel to the difference of 1247 years between the Creation eras of Eusebius and Bede.

Heriger and Abbo: A Comparative Analysis

There are not only parallels but also significant differences between the chronological corrections of Heriger and Abbo. Where Heriger expressed his theory in a letter to his pupil Hugo (c. 995), Abbo's evolved through several phrases into a chronological correction. In his *Praefatio*, Abbo's reasoning employed for the most part chronographical arguments, but in his *Prologus*, the date of the Creation of the world was calculated based on the luni-solar functionality of a 532-year cycle. Ultimately Abbo applied the same computistical technique to the problem of the Dionysian reckoning in his letters to Geraldus and Vitalis (1003 and 1004).

The arguments presented are also for the most part methodologically different. Abbo employed purely chronological examples in order to illustrate the unique character of each year within a 532-year luni-solar cycle. In both his *Prologus de ciclo magno paschae* and his *Epistola prima ad Geraldum et Vitalem* Abbo provided

the luni-solar parameters for the then *annus praesens* (1000 and 1003, respectively) and for the first year of a 532-year Dionysian cycle (1/532). The accompanying tables were moreover at least as important to Abbo as the commentary itself. Heriger, on the other hand, did not include such corrective tables in his letter, but rather sought more 'symbolic' argumentation. He drew a parallel between the Creation and Good Friday which culminated in the similarities between the Creation of Adam and the Passion of Christ (23 March). He also referred to the council of Nicaea in order to assert the superiority of the Greek calculation of the Passion in general. In fact, Heriger's examples did not in and of themselves prove that Christ had died as held by the Greek tradition.

Despite these differences both authors referred multiple times to the 'gospel verity' in order to legitimize their chronological corrections. This term does not, however, cover the entire overtone. Based on the evangelical evidence one could fairly easily deduce that Christ had died one day after the Jewish Pascha on a Friday (luna xv), but for the precise calendar day of Christ's Passion one had to rely on two already existing and mutually exclusive traditions. Heriger demonstrated that the date of Christ's Passion according to the Greek tradition could be traced to the year AD 42 (= 34 VA); Abbo, however, sided resolutely with the Latin tradition and dated Christ's Passion in AD 12 (= 33 VA).

It is interesting to speculate what the attitude of Heriger and Abbo might have been towards Dionysius Exiguus and the Venerable Bede. At the very outset of his letter Heriger used a straightforward argument of *auctoritas* to demonstrate Dionysius Exiguus's error with respect to the Gospels, which by definition could not possibly be wrong.¹⁵³ Moreover, Heriger wondered how Dionysius could have calculated his Incarnation era accurately, especially with the sometimes complicated reckoning of at times complete and at other times incomplete regnal years.¹⁵⁴ Such methodological reproaches aimed at Dionysius Exiguus are found not

¹⁵³ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, p. 480: 'Frater hugo, si interrogaris cui potius credere debeas, quandoquidem dissentiunt, evangelio an Dionysio, responsurum te non diffido quia potius evangelio. Sed evangelio in veritate constante, Dionysius invenitur multum dissentire.'

¹⁵⁴ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, pp. 481–82: 'Qui enim scire potuit abbas Dionysius a suo tempore retro computans annos imperatorum usque ad quadragesimum secundum augusti caesaris annum, qui fuit annus primus nativitatis Christi, secundum chronica eusebii? Quomodo, inquam, indubitate scire potuit qui integris annis regnaverint, qui aliquot menses vel dies superhabuerint, quanta interregna fuerint, id est, uno defuncto et altero substituto, quantum temporis intercesserit?'

exclusively in Abbo. In his *Praefatio*, Abbo was even relatively positive with respect to Dionysius.¹⁵⁵ Only in his letters to Geraldus and Vitalis did Abbo feel sufficiently emboldened by the assembled evidence to question the *auctoritas* of Dionysius Exiguus.¹⁵⁶ Abbo was also surprisingly critical of his great computistical mentor, the Venerable Bede. In both his *Praefatio* and his second letter to Geraldus and Vitalis he accused Bede of a failure in comprehensiveness, and even of thoroughness.¹⁵⁷ After Helperic of Auxerre, Abbo was probably the first author who dared to express explicit criticism of Bede's computistical works. Heriger, however, was much more circumspect. Although he did not always agree with Bede in detail, he aimed his critical arrows primarily at Dionysius Exiguus.

The nature of the chronological corrections of Heriger and Abbo are primarily technical and theoretical. They nevertheless held differing opinions about the practical applications of their theories. Abbo's *Laterculus posterior* (1004) is a thoroughly developed 532-year table of concurrents in which his chronological correction qualifies as a fully fledged alternative *secundum veriore assertionem* for Dionysius's Incarnation era and for both Creation eras, namely according to the Septuagint reckoning (AM 5199) and the Hebrew verity (AM 3952). Heriger, however, did not feel compelled to replace this faulty Dionysian reckoning, because it was not really harmful to the faith.¹⁵⁸

The issue of the manuscript dissemination of the two chronological corrections remains unresolved. Heriger's letter to his pupil Hugo was probably copied only once, and that copy ultimately wound up in the nearby Liessies. As far as Abbo is concerned, the scanty manuscript witnesses of his chronological corrections hail almost exclusively from Fleury. Only two exceptions to this are known, both of which exist in extreme fragmentary form, namely Leiden, Universiteitsbibliotheek, MS Scaliger 49 (Fulda, s. X/XI) and Vatican City, BaV, MS Reginensis latinus 1573

¹⁵⁵ Berlin, MS Phill. 1833, fol. 45': 'Dionysius abbas genere romanus paschales circulos mira breuitate composuit, utpote utriusque linguae peritia insignis.'

¹⁵⁶ Berlin, MS Phill. 1833, fol. 56': 'Nec id dicens, auctoritatem tanti uiri refello, sed historiarum et euangeliorum fidei quae Adam reuerentia magis assensum praebeo.'

¹⁵⁷ Berlin, MS Phill. 1833, fol. 45': 'In cuius quaestionis obscuritate dominus Beda plurimum observatus, nihil lucis infudit'; and Berlin, MS Phill. 1833, fol. 56': 'Testatur id Beda uenerabilis presbyter in libro de temporibus capitulo xlvii qui obscuritate ipsius quaestionis fatigatus, posteris enodandi licentiam tribuit absque ullo supercilio.'

¹⁵⁸ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, p. 484: 'Consuetudo autem ecclesiarum, si non est contra fidem, nullo modo permutanda.'

(Ferrières, s. XI). Hardly one hundred years later Abbo's corrections would no longer be copied even in Fleury.¹⁵⁹

Finally, it is difficult to determine whether Heriger of Lobbes and Abbo of Fleury ever met each other in person. It is quite probable, because in Heriger's day the abbey library of Lobbes was already in possession of Abbo's commentary on the *Calculus* of Victorius of Aquitaine (before 985). This commentary was found in the same manuscript containing Heriger's chronological correction.¹⁶⁰ And yet there is no reason to suppose that they were aware of each other's chronological corrections. At any event, writing at about the same time they both employed rational arguments to speak out against established tradition, namely the Dionysian era. Where Bede tried to avoid this computistical problem by means of a sharply ironic comment, Heriger and Abbo dared to tackle this confrontation with tradition. This alone would be sufficient reason for us to regard these chronological corrections to Dionysius's Incarnation era as highly original.

¹⁵⁹ Marco Mostert, 'Gerbert d'Aurillac, Abbon de Fleury et la culture de l'An Mil: étude comparative de leurs oeuvres et de leur influence', in *Gerberto d'Aurillac da Abate di Bobbio a Papa dell' Anno 1000*, Archivum Bobiense, Studia, 4 (Nuvolone, 2001), pp. 397–431 (p. 429).

¹⁶⁰ Dolbeau, 'Un nouveau catalogue des manuscrits de Lobbes', pp. 199–200.

MARIANUS SCOTTUS (D. 1082)

Biography of an Enclosed Scholar

Thanks to a number of autobiographical annotations we are fairly well informed about the life of the Irish chronicler Marianus Scottus.¹ He wrote among other things a self-reflexive acrostic to the year 1076. The solution (*Moél Brigitte clausenáir romtinól*) amounts to *Marianus the cloistered made me*. He was born Moel-Brigte in 1028, presumably in the northern part of Ireland. At the age of twenty-four he retreated from the world and entered the monastery of Mag Bile. Only a few years later Marianus followed the example of Animchad (d. 1043) and undertook a *peregrinatio pro Christo* to the continent.² Marianus first reached the monastery of St Martin's in Cologne, which had been administered by Irish monks since 975. It was there that he became a monk in August 1056, but two years later he left Cologne for Fulda. On the way, however, Marianus paused in Paderborn, where he said prayers on the sleeping mat of the Irish *inclusus* Paternus (d. 1058), who shortly before had perished when he refused to leave his burning cell.

Thereafter Marianus continued his journey to Fulda, and on 13 May 1059 he was consecrated a priest at the grave of the Irish saint Kilian in Wurzburg. Upon his return to Fulda Marianus immediately occupied the enclosed cell of his compatriot Animchad and, standing on the grave of his great predecessor, Marianus sang the Mass each and every day. On 3 April 1069 Marianus left his cell at Fulda and was transferred to the monastery of St Martin's in Mainz. This was at the

¹ On Marianus's life, see von den Brincken, 'Marianus Scottus', pp. 193–95.

² We do not know whether this *peregrinatio* was voluntary or not: James F. Kenney, *The Sources for the Early History of Ireland: Ecclesiastical, an Introduction and Guide*, Records of Civilization: Sources and Studies, 11 (Dublin, 1979), p. 615 n. 314.

request of Siegfried (d. 1084), the former Abbot of Fulda who had been made Archbishop of Mainz in 1060. On 10 July a new chapel was consecrated there in honor of the apostle Bartholomew, and that very day Marianus had himself enclosed for the second time. He remained in this new cell for over thirteen years, and there he worked on his chronicle, which he completed in 1076. No other works of his are known to us. According to the martyrology of Mainz, Marianus inclusus died on 22 December, presumably in the year 1082.³

Marianus's Correction of the Christian Era

Introduction

Marianus's chronicle consists of a preface and three books. The most important extant manuscript was dictated by Marianus himself and corrected from his cell at the monastery of St Martin in Mainz.⁴ The text itself was written down by an amanuensis and compatriot of Marianus who had only recently arrived at the monastery. A complete copy was produced in Mainz before the end of the eleventh century, namely at the abbey of St Alban's.⁵ We know as well that two further manuscript copies, now lost, were in circulation, namely in Gembloux (s. XI) and in Liège (s. XV).⁶ The first editions, by Herold (1559) and Pistorius (1613 and 1726), are unfortunately incomplete and insufficiently critical.⁷ At the end of the nineteenth century Book III was re-edited by Waitz (1884), and a few decades later von den Brincken (1961) did the same for the preface and the first eight chapters of Book I.⁸ It is our intention to provide a complete critical edition of Marianus's

³ Kenney, *Sources for the Early History of Ireland*, p. 615 n. 315.

⁴ Vatican City, Biblioteca apostolica Vaticana, MS Palatinus 830, fols 27^v–169^v (s. XI).

⁵ London, British Library, MS Cotton Nero C V, fols 27^r–159^r (s. XI).

⁶ Georg Waitz, 'Prooemion ad "Chronicon" Mariani Scotti', in *Monumenta Germaniae Historica, Scriptores*, 5 (Stuttgart, 1968), pp. 481–94 (p. 483).

⁷ Marianus Scottus, *Chronicon*, ed. by Johann B. Herold, in *Mariani Scoti, poetae, mathematici, philosophi et theologi eximii, monachi Fuldensis, historici probatissimi chronica: ad Evangelii veritatem [...] magno iudicio discussam et correctam, certa enumeratione temporum conscripta* (Basel, 1559), pp. 2–440, and Marianus Scottus, *Chronicon*, ed. by Johann Pistorius and Burkhard G. Struve, *Veterum scriptores rerum germanicarum*, 1 (Regensburg, 1726), pp. 448–656.

⁸ Marianus Scottus, *Chronicon*, ed. by Georg Waitz, *Monumenta Germaniae Historica, Scriptores*, 5 (Stuttgart, 1968), pp. 481–562; and Marianus Scottus, *Chronicon*, ed. by Anna-Dorothea von den Brincken, in 'Marianus Scottus: Unter besonderer Berücksichtigung der nicht

chronicle in future. In this study we have reproduced the transcription of the Vatican manuscript as faithfully as possible, including the somewhat inconsistent spelling and punctuation. Where necessary we have made corrections based on the London manuscript.

In the Vatican manuscript Marianus's chronicle is preceded by three emendations or chronological lists (fols 4^r–15^r) and a 532-year cycle (fols 18^r–25^r), which served as accompanying study material.⁹ The chronicle proper consists of three books and a preface (fols 26^r–27^v). Book I (fols 31^v–71^r) contains twenty-two chapters and covers the period from the Creation of the world to the Birth of Christ. It can be divided onto two parts. The first ten chapters are chronological in nature, whereas the last twelve chapters provide a chronographic overview of the first five *aetates*. Book II (fols 71^r–100^v) deals with the period of the Life of Christ on earth and consists of no fewer than eighty-three chapters. It is thus striking how much attention Marianus devotes to these thirty-three years in comparison to the more than five thousand years of world history. The third and final book (fols 101^r–166^r) is a chronicle of the period from Christ's Birth to Marianus's own time. The original division into ninety-six chapters has not been maintained.¹⁰ The end of the chronicle was originally set at 1073, but an initial continuation in the Vatican manuscript itself extends to 1082.

Based on a passage in the eighth chapter, we may deduce that Marianus dictated Book I in either 1072 or 1076.¹¹ The passage in question is a chronological impossibility, given the incongruity between the years of the cycle and the indiction number. There are two possible corrections: either *anno xiii* is to be emended to *anno viiii* (1072), or *indictione decima* should be corrected to *indictione quarta-decima* (1076). The scribe of the London manuscript chose this second option, but in light of a marginal note by the amanuensis (fol. 33^r), the first possibility seems the more likely one.¹² Moreover, the passage in question appears in the eighth chapter of Book I that deals specifically with the indiction number.

veröffentlichten Teile seiner Chronik', *Deutsches Archiv für Erforschung des Mittelalters*, 17 (1961), 191–231 (pp. 208–31).

⁹ These folios were added later to the manuscript, however, and placed before the chronicle proper: Bartholomew MacCarthy, 'The Codex Palatino-Vaticanus 830', *Royal Irish Academy: Todd Lecture Series*, 3 (1892), 3–36 (p. 7), and Waitz, 'Prooemion ad "Chronicon" Mariani Scotti', p. 489.

¹⁰ MacCarthy, 'Codex Palatino-Vaticanus 830', p. 9.

¹¹ Vatican City, BaV, MS Palatinus 830, fol. 36^v: 'Undecimus magnus ciclus in cuius anno xiii sumus indictione decima.'

¹² MacCarthy, 'Codex Palatino-Vaticanus 830', p. 15.

Because 1073 served as the original end date of Book III, we may conclude that the chronicle of Marianus proper was written in the period 1072–73. Marianus's preface, however, dates to 1076 and was thus written later than the chronicle itself. This probably explains the indeterminate dating of the eighth chapter of Book I. Because of the inconsistency in contents among the various books, however, von den Brincken suggests that Marianus had worked on the sections of his chronicle in a different order, namely on Book II first, and only later on Book I and Book III.¹³ She characterizes the Vatican manuscript as a kind of study draft in which Marianus placed disparate computistical theories together in inconsistent fashion.¹⁴ Our research, however, indicates that this theory is untenable. In his chronicle, Marianus did succeed in presenting a coherent theory and maintaining it consistently throughout.

The chronicle of Marianus Scottus belongs to a genre that would have its pinnacle in the first half of the twelfth century.¹⁵ Marianus, however, was not so much interested in the historical facts themselves, as he was in a correct ordering of these facts. In other words, he tried to situate all the chronographical data correctly within a single comprehensive chronological framework. Marianus went to such lengths in this endeavour that he was forced to adjust the traditional length of both the pre-Christian and Christian eras. This meant that a correction to Dionysius's Incarnation era was inevitable.

Chronica universalis (1072–73)

Liber primus: Ab adam usque ad Christum

The pre-Christian period from a computistical perspective (1–10). Marianus approached the issue of the pre-Christian period from two anchor-points, namely the dates of the Creation of the world and of the Passion of Christ. Chapter 1 deals with Dionysius Exiguus's view of the Passion and Resurrection of the Lord. It comprises a summary of three fragments. Marianus borrowed the first fragment from Dionysius's *Epistola ad Petronium*, whereas the second fragment

¹³ Von den Brincken, 'Marianus Scottus als Universalhistoriker', p. 996.

¹⁴ Anna-Dorothea von den Brincken, *Studien zur lateinischen Weltchronistik bis in das Zeitalter Ottos von Freising* (Dusseldorf, 1957), p. 220.

¹⁵ Von den Brincken, 'Marianus Scottus', pp. 204–06, and von den Brincken, 'Marianus Scottus als Universalhistoriker', pp. 994–96.

consisted of a brief borrowing from Dionysius's *Epistola ad Bonifacium et Bonum*.¹⁶ Neither fragment, however, provides any concrete information whatsoever about Christ's Passion and Resurrection, despite the expectations raised by the title of this chapter.

This is the case with the third fragment, which appears not to have been borrowed from the letters of Dionysius, but rather from the tract *De ratione paschali* by pseudo-Morinus of Alexandria (post-597).¹⁷ In this fragment 25 March plays a central role because it was the date both of the (Julian) equinox as well as of the Creation of the world and the Passion of Christ.¹⁸ These data were inextricably linked in the eyes of pseudo-Morinus. Because the equinox was fixed on Friday, 25 March (luna xiv), the Resurrection of Christ consequently occurred two days later, namely on Sunday, 27 March (luna xvi).¹⁹

Marianus erroneously attributed this Resurrection theory to Dionysius Exiguus, and he therefore decided to confront Dionysius with the gospel data in a second chapter. He was amazed by the fact that Dionysius did not incorporate the data from his theory of the Resurrection into the date of Christ's Passion (AD 34),

¹⁶ See also Dionysius Exiguus, *Epistola ad Petronium*, pp. 63–68, and Dionysius Exiguus, *Epistola ad Bonifacium et Bonum*, ed. by Krusch, in *Studien zur christlichmittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, pp. 82–86.

¹⁷ There is a logical explanation for Marianus's error. In composing his chronicle he made frequent use of a manuscript from Reichenau that would later end up in Mainz, namely Paris, Bibliothèque nationale de France, MS lat. 4860 (c. 900). It is indeed the case that in this manuscript the Irish pseudepigraphal tract by pseudo-Morinus (fol. 150^v) follows immediately after the two letters by Dionysius (fols 148^v–150^r). Only the first line of the tract, written in capitals, appears there by way of transition. A comparison of the manuscripts reveals that the fragment in Marianus's chronicle (fol. 32^r) does indeed derive from this Paris manuscript.

¹⁸ Vatican City, BaV, MS Palatinus 830, fol. 32^r: 'Post biduum Pascha fiet, id est [in] congruum fuit pascha Iudeorum in equinoctio, id est in octavo die kal. apr., ut in equinoctio novissimo mundi renovatio et redemptio per necem Christi, quia in equinoctio mundi fuit contritio et compositio ne dispar sibi invicem fieret utraque formatio.'

¹⁹ Vatican City, BaV, MS Palatinus 830, fol. 32^r: 'Tantum autem misterium Dei scitote quod non est mirum si accederit iudicium si convenirit equinoctium, quod est viii kal. apr. sexta feria luna xiiii et resurrectio luna xvii, post xii kal. apr. quod est equinoctium vernale, hoc est initium anni solis, et ante hoc initium non fit pascha apud Ebreos et Grecos et Latinos nisi in errore quod dies dominica, in qua facta est lux, fuit ante xii kal. apr., quod in nocte iia feria in anno crucis xi autem kal. apr. iia feria et x kal. apr. iiii feria, in qua dictum est: post biduum Pascha fiet. Deinde consentiunt alii quod ita fiet post biduum, id est completionem et integritatem duorum testamentorum pascha et transcensus ad regnum Dei conveniente in via feria equinoctio luna xiiii et solemnitatem resurrectionis in die dominica et reliqua.'

but rather in the date of His Incarnation (AD 1).²⁰ Moreover, according to the four Gospels, the Last Supper fell on a Thursday.²¹ In Dionysius's reckoning, however, this fell on a Sunday, and Easter Sunday occurred a full week later, namely on 28 March (luna xxi).²² This is what had prompted the Venerable Bede to make his famous ironic statement.²³

Marianus next compared Dionysius's theory of the Resurrection to a full battery of scriptural citations. He was thus able to reconstruct in detail the final days preceding the Last Supper.²⁴

²⁰ Vatican City, BaV, MS Palatinus 830, fol. 32^r: 'Sciendum est hoc quod praedicta promissio Dionissii numquam in anno passionis, sed in anno nativitatis dominicae secundum ipsum habetur.' In the year AD 1 Easter Sunday does indeed fall on Sunday 27 March (luna xvi).

²¹ Vatican City, BaV, MS Palatinus 830, fol. 32^{r-v}: 'In anno vero passionis, id est in anno xxxiiii incarnationis iuxta eum, xiiiia luna primi mensis, id est pascha Iudeorum, quod erat dominica cena feria va iiiior evangelis contestantibus ipsoque Domino teste ita: Desiderio desideravi hoc pascha vobiscum manducare atequam patiar.' See also Luke 32. 15.

²² Vatican City, BaV, MS Palatinus 830, fol. 32^v: 'Apud Dionissium habetur dominico die xii kal. apr. et resurrectio dominica v kal. apr. luna xxia.'

²³ Vatican City, BaV, MS Palatinus 830, fol. 32^v: 'quod sanctus Beda hironice sic increpat: "Et ideo, inquit, circulis beati Dionissii apertis, si quingentesimum sexagesimum sextum ab incarnatione Domini contingens annum quartamdecimam lunam in eo nono kal. apr. quinta feria reperieris, et diem paschae dominicum vi kal. apr. luna xviiia, age Deo gratias, quia quod querebas sicut ipse promisit, te invenire donavit" et reliqua. Haec Beda.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

²⁴ Vatican City, BaV, MS Palatinus 830, fol. 32^v: "Decima", inquit Dominus, "die mensis primi tollat unusquisque agnum per familias domus suae, iuxta quem ritum tolletis et hedum et servabit[is] eum usque ad xiiiium diem eiusdem mensis" et reliqua. Iohannes autem ante vi dies paschae dicit Iesum venire in Bethaniam ubi in convivio de ungento narrat. In crastino autem decimo die primi mensis ante quinque dies paschae, sicut Iohannes testatur, egrediens omnis populus in montem olivarum tulit inde agnum Dei in domum Domini, qui certum diem victimationis sue xiiiia luna ad vesperam qua immolari incepit exspectabat. Et prima sabati xiii kal. apr. ad vesperam sicut Matheus dicit "relictis illis abiit in Bethaniam ibique mansit". Mane vero feria iia xii die kal. apr. luna xi ante quattuor dies pascha revertens in civitatem maledixit ficulniam. Et eadem vespera secundum Marcum exiit in Bethaniam, quod Matheus intermisit, ut Augustinus dicit. Et cum mane transissent secundum Marcum, id est iii feria xi kal. apr. luna xiiia ante tris dies paschae, Augustino teste, viderunt ficum aridam et fractam a radicibus suis, et ad vesperum abierunt in Bethaniam. Et secundum Marcum veniunt rursus in Hierosolymam et reliqua usque dum dicit: "Erat autem pascha et azima post biduum." Hoc est feria iiiia x kal. apr. luna tertiadecima, quod erat biduum ante pascha, et abierunt in Bethaniam. "Erat enim docens cotidie in templo" Luca teste, et in unaquaque nocte in Bethania apud Mariam et Martham manebat. "Prima autem die azemorum", ut Matheus dicit, "acceserunt ad Iesum discipuli eius dicentes: Ubi vis, paremus tibi commedere pascha" et reliqua, usque dum dicit: "Et fecerunt discipuli, sicut constituit illis Dominus, et

Table 20

Sat. (luna ix)	Departure for Bethany	John 12. 1	19/3
Sun. (luna x)	Departure for Jerusalem	John 12. 12	20/3
	Palm Sunday	John 12. 13–19	
	Return to Bethany	Matt. 21. 17	
Mon. (luna xi)	Departure for Jerusalem	Matt. 21. 18	21/3
	Cursing of the fig tree	Matt. 21. 19	
	Return to Bethany	Mark 11. 11	
Tues. (luna xii)	Departure for Jerusalem	Mark 11. 20	22/3
	Fig tree dried up	Mark 11. 20	
	Return to Bethany	[Luke 19. 47]	
Wed. (luna xiii)	Departure for Jerusalem	Mark 11. 27	23/3
	Erat autem pascha et azima post biduum	Mark 14. 1	
	Return to Bethany	Mark 14. 3	
Thu. (luna xiv)	Last Supper	Matt. 26. 17	24/3

Marianus added the accompanying calendar dates himself, however, thereby linking the gospel data with the Latin tradition. This chronological reconstruction was incontrovertible in Marianus's view.²⁵ At the same time, however, he attempted to minimize the culpability of all those who had strayed from the gospel verity.²⁶ Marianus had not just Dionysius Exiguus in mind, but pseudo-Theophilus of Caesarea, as well, whose views he would study and criticize in the ensuing chapters.

The third and fourth chapters consist of an integral borrowing from the *Acta synodi* by pseudo-Theophilus of Caesarea (post-429).²⁷ This dialogue deals not only with the date of Christ's Passion, but also with the date of the Creation of the world. According to pseudo-Theophilus, the vernal equinox, the Creation of the world, and the Resurrection of Christ fell on Sunday 25 March (*luna plena*).²⁸

paraverunt Pascha. Vespere autem facto discumbebat cum duodecim discipulis suis, et edentibus illis dixit: Amen, dico vobis, quia unus vestrum me traditurus est" et reliqua. Et in ipsa cena cum Pascha comederet cum discipulis suis feria quinta ad vesperam priusquam a Iudeis tentus est, dixit hoc: "Disiderio disideravi hoc Pascha manducare vobiscum antequam patiar" et reliqua.'

²⁵ Vatican City, BaV, MS Palatinus 830, fol. 32^v: 'Quis huic verbo veritatis potest contradicere nisi hereticus?'

²⁶ Vatican City, BaV, MS Palatinus 830, fol. 32^v: 'Itaque qui contra evangelia praedicta protulerunt, non ut contradicerent veritati dixerunt, sed res incognitas nec prius ventilatas palpaverunt.'

²⁷ As he had done in his first chapter, Marianus derived this material from Paris, BnF, MS lat. 4860, fol. 144^{r-v}.

²⁸ Vatican City, BaV, MS Palatinus 830, fol. 33^v: 'Ergo quomodo fuisset creatus mundus inueniamus. Responderunt: Die dominico, uerno tempore, equinoctio, hoc est viii kal. apr., et luna

In similar fashion to what he had done in his second chapter, Marianus confronted pseudo-Theophilus with a more authoritative author in Chapter 5, in this case the Venerable Bede. With this confrontation Marianus sought to refute once and for all every possible objection to the gospel verity.²⁹ He pointed out that Bede had already established three chronological criteria that the Jewish pascha had to meet based on the Old Testament: (1) the Jewish pascha fell after the vernal equinox; (2) the Jewish pascha fell in the month Nisan; and (3) the Jewish pascha fell on the evening of the transition from luna xiv to luna xv.³⁰ The Catholic church subsequently added as fourth criterion that Easter Sunday must fall on the first Sunday following the full Easter moon.³¹ Bede also noted that the vernal equinox fell on 21 March, so that the paschal term (luna xiv) had to be dated between 21 March and 18 April.³² On these grounds Marianus rejected pseudo-Theophilus's theory. The latter had based his dating of the Resurrection of Christ (25 March) on the erroneous claim that the vernal equinox and the world had been created on the same day of the calendar.³³

plena. Dixerunt: Sicut in principio mundi creatus est per ipsum tempus etiam per resurrectionem dominicam redemptus est a peccato. Ressurrexit itaque Ihesus Christus Dominus noster die dominico, uerno tempore, equinoctio, luna plena.'

²⁹ Vatican City, BaV, MS Palatinus 830, fol. 34^r: 'Haec est epistola praedicta Theophili ceterorumque sanctorum virorum simplicium qui in primis res incognitas neque etiam antea tractatas in obscura suspitione et velamine pro utilitate ecclesie quasi manibus palpaverunt, modo autem quando Dei gratia res ecclesiastica lucita atque cognita constat, diligentius indiget tractari ne error contra scripturam divinam atque catholicam fidem ecclesie, maximeque contra veritatem evangelicam atque dominica verba omnino poterit oriri.'

³⁰ Vatican City, BaV, MS Palatinus 830, fol. 34^r: "Pascha autem Ebreorum tribus semper observationibus secundum legem Moisi debet observari: Prima observatione, ut post equinoctium, secunda, ut in primo mense, tertia, ut in tertia ebdomada primi mensis, in fine xiiiiiae lunae, quod est initium xvmae celebretur. Quod si quis dicat non equinoctii memoriam sed tantum primi mensis et tertii in eo septimanae possuisse Moysen, sciat, etsi equinoctium nominatim non exprimit, in hoc tantum ipso quod a plenilunio primi mensis pascha faciendum praecepit equinoctii transcensum plenaria ratione depromit." See also Beda Venerabilis, *De temporum ratione liber*, ch. 61.

³¹ Vatican City, BaV, MS Palatinus 830, fol. 34^r: 'Tria vero praedicta atque quartam, id est dominicum diem post xiiiam lunam ecclesia catholica conservat.'

³² Vatican City, BaV, MS Palatinus 830, fol. 34^r: 'Si itaque caput mundi et equinoctium atque Christi resurrectio in viii kal. apr. fuisset, pascha Ebreorum ante equinoctium contigisset, "quia xiiiiia luna primi mensis in duodecimo die kal. apr. primum, et in xiiii kal. mai. ad postremum reperitur".' See also Beda Venerabilis, *De temporum ratione liber*, ch. 59.

³³ Vatican City, BaV, MS Palatinus 830, fol. 34^r: 'Cum ergo neque equinoctium nec caput mundi in viii kal. apr., ex quo argumentatum est ut etiam eadem die atque eadem luna plena hoc

In Chapter 6 Marianus presented a substantial portion of the dialogue *De ratione computi* (771), attributed to Bede.³⁴ In the first fragment Marianus showed that the world was created on 18 March and that the equinox fell on the fourth day of Creation, namely 21 March (luna xiv).³⁵ The second fragment dealt with the superiority of the Nicaean vernal equinox (21 March) as opposed to the Julian vernal equinox (25 March).³⁶

Ultimately Marianus wanted to apply this knowledge of the equinox and the Creation of the world to the 532-year luni-solar cycle. He therefore began Chapter 7 with the striking claim that according to the Venerable Bede the world was created in the fifty-fourth year of a 532-year cycle (54/532).³⁷ Marianus's attribution to Bede is, however, erroneous. He was in fact referring to the ninth-century tract *De anno magno*, which was presumably written by Dungal of St Denis (d. after 825).³⁸ In this text Dungal dates the Creation of the world to Sunday 18 March

est xva, Christi resurrectio contigisset, non convenit, sicut deficit ratio argumenti, sic similiter ipsa veritas argumentate rei, cum argumento effici videbatur, ut effecta res esse vel stare omnino potuisset.'

³⁴ For this Marianus drew upon the oldest and best manuscript of this text, namely Paris, BnF, MS lat. 4860, fols 111^v–117^r.

³⁵ Vatican City, BaV, MS Palatinus 830, fol. 34^r: "Principium saeculi et conditionis mundi secundum Egiptios quibus Abraam a Caldeis edoctus astrologiam advexit xv die kal. apr. contigisse fertur, eo quod eo die zodiaci initium extitisse, atque iuxta zodiaci divisionem eo die facta est lux, quo sol arietis signum revertens ad exordium ingrediebatur, qui quarto die conditionis saeculi videlicet xii die kal. supradictarum incipiente creatus est, qui pari spatio dividens lucem et tenebras sua presentia absentiaque vernale equinoctium eodem die fecit." See also pseudo-Beda Venerabilis, *De ratione computi*, ed. by Jacques-Paul Migne, Patrologia Latina, 90 (Paris, 1850), cols 579–600, ch. 3.

³⁶ Vatican City, BaV, MS Palatinus 830, fol. 34^r: "Ipsi ergo cum quaestiones Exodi exponerent, dixerunt pascha non prius esse immolandum, antequam hoc equinoctium vernale transiret. Unde nos necesse est ad observandam veritatis regulam ut dicamus aperte et pascha ante equinoctium tenebrasque devictas non immolandum, et hoc equinoctium xii kal. apr. die ascribendum, sicut non solum auctoritate paterna, sed et horologica consideratione docemur." See also pseudo-Beda Venerabilis, *De ratione computi*, ch. 10.

³⁷ Vatican City, BaV, MS Palatinus 830, fol. 35^r: 'Ciclus magnus paschalis incipit in cuius quinquagesimo quarto anno hoc est sexto decimo anno cicli tertii decennovennalis ipsius magni cicli caput mundi constituitur, sancto Beda sic confirmante.'

³⁸ The most important manuscript for this tract was written at St Denis, namely Vatican City, Biblioteca apostolica Vaticana, MS Reginensis latinus 309, fols 63^v–64^v (s. ix). The title given in this manuscript (*Annus magnus de concurrentibus compositus ad ostendendam diversitatem nativitatibus et passionis Domini*) agrees largely with the title of Marianus's Chapter 7 (*De anno magno ex concurrentibus composito a Beda ut ostenderet diversitatem cronicarum atque historicorum in nativitate*

AM 1, which coincides with the fifty-fourth year of a 532-year cycle (54/532). He subsequently calculated the dates of Christ's Birth and Passion according to three different Creation eras, namely according to the Hebrews (AM 3952), Eusebius-Jerome (AM 5199), and the Greeks (AM 5500). In the process Dungal consistently linked these dates to the accompanying paschal terms and concurrents, so that he was also able to place them in a 532-year luni-solar cycle.³⁹

Table 21

	<i>Paschal term</i> (<i>luna xiv</i>)	<i>Concurrent</i> (<i>24 March</i>)	<i>x / 532</i>
° World (AM 1)	21 March	7	54/532
<i>Hebrews</i>			
- ° Christ (AM 3952)	1 April	4	281/532
- † Christ (AM 3986)	15 April	4	315/532
<i>Eusebius-Jerome</i>			
- ° Christ (AM 5199)	18 April	1	464/532
- † Christ (AM 5233)	2 April	2	498/532
<i>Greeks</i>			
- ° Christ (AM 5500)	22 March	7	233/532
- † Christ (AM 5534)	5 April	7	267/532

Marianus himself took matters a step further. He merged the Hebrew verity with the Dionysian era and thus made three simultaneous calculations, namely in

et passione resurrectioneque Christi, et de tractatione eiusdem magni anni). Marianus's attribution to Bede is entirely understandable, for this tract followed immediately upon Dungal's chronicle proper (807), an abbreviated version of Bede's chronicle.

³⁹ Vatican City, BaV, MS Palatinus 830, fol. 35^{r-v}: "Ab adam usque nativitatem Christi computantur secundum Ebreos anni iiii milia dcccclii. Inde usque ad passionem eius anni xxxiii et dimidius annus. Si in primo anno quo Adam factus est, terminum paschae posueris in xii° kal. apr. et vii concurrentes, erit ipsa dies quarta feria in qua sidera condita sunt, plenilunium atque equinoctium. Quod si cum tali termino talique concurrente ciclum idem inchoaveris, et usque ad Christi nativitatem vel passionem supputando praedictum annorum numerum perduxeris, erit anno nativitatibus dominicae terminus paschae kal. apr. et concurrentes iiii, annoque passionis dominicae terminus xvii kal. mai. et concurrentes iiii." Haec Beda. [...] "Si vero ab adam usque nativitatem Domini quinque milia centum nonaginta ix annos habere volueris et supputationem eorundem annorum secundum praedictam rationem per concurrentes et terminos compleveris, habebis anno nativitatibus Domini terminum paschae xiiii kal. mai. et concurrens unus, anno vero passionis terminum iiii non. apr. et concurrentes duo." Haec Beda. [...] "Si autem ab adam usque ad Christum secundum Grecos annorum quinque milia quingentorum pronuntiaveris, eosque secundum ipsam praedictam regulam computaveris, eveniet tibi anno dominicae nativitatibus terminus paschae xi kal. apr. et concurrentes septem, annoque passionis terminus non. apr. et concurrentes vii." Haec Beda.'

Creation eras, in 532-year luni-solar cycles, and in Incarnation eras. On these grounds Marianus concluded that 'Bede', that is, Dungal, had written this text in order to demonstrate a loss of 261 years between on the one hand the date of Christ's Birth according to the Hebrew Creation era (AM 3952 = 253 BC) and on the other hand the date of Christ's Birth according to Bede himself (AM 4213 = AD 9).⁴⁰ This remarkable result emerged from a fusion of Bede's computistical works with Dungal's *De anno magno*. Dungal fixed the date of Creation in the fifty-fourth year of a 532-year cycle (AM 1 = 54/532), and Bede dated Christ's Passion according to the Greek tradition on 23 March (AM 4246 = AD 42).⁴¹ The outcome was that according to the Dionysian era, the date of Christ's Birth (AM 4205 = AD 1) fell no fewer than 253 years after Christ's Birth according to the Hebrew Creation era (AM 3952 = 253 BC).⁴² Consequently there were indeed exactly 261 years

⁴⁰ Vatican City, BaV, MS Palatinus 830, fol. 35^r: 'Hoc autem dicit Beda ut ostendat damnum ducentorum et sexaginta annorum atque unius anni qui desunt in cronicis de praedicta summa secundum Ebreos ab ipso anno in quo contigit dominica nativitas secundum supputationem praedictam, qui est annus ducentesimus quinquagesimus tertius ante incarnationem iuxta Dionisium, usque ad annum nonum incarnationis secundum eundem Dionisium, qui est *annus nativitatis* dominicae secundum Bedam.'

⁴¹ Vatican City, BaV, MS Palatinus 830, fol. 35^r: 'Ab anno enim quinquagesimo quarto cycli magni pascalis indictione xva qui est caput mundi teste Beda iuxta cronicas usque in annum xl secundum incarnationis iuxta Dionisium, in quo Beda putat Dominum passum fuisse x kal. apr., et resurrexisse viii kal. apr., anni sunt iiior milia ducenti quadraginta sex.'

⁴² Vatican City, BaV, MS Palatinus 830, fol. 35^{r-v}: 'Ab adam usque ad Christum hoc est in annum ducentesimum quinquagesimum tertium ante incarnationem iuxta Dionisium sexta indictione, anni sunt iiia milia dcccclii, qui sunt vii magni cycli numero annorum et insuper ducenti viginti octo anni, qui tamen magni cycli incipiunt ab anno quinquagesimo quarto magni cycli pascalis qui est caput mundi. Tria ergo milia et ducenti sunt sunt sex magni cycli et supra octo anni. Adde duos annos praedictos ad octo fiunt x, supersunt tunc septingenti sexaginta anni, id est magnus ciclus et supra ducenti viginti octo anni. Annus autem in quo natus est Dominus secundum Dionisium quarta erat indictione. Ab anno autem quarto ante incarnationem iuxta Dionisium in quo perficitur et finitur indictio usque in annum nativitatis dominicae secundum Ebreos, anni sunt ducenti quingenta. Si qua autem summa per trigenos pleniter annos constetir, pleniter erit etiam per indictiones. Ducenti ergo quadraginta plene indictiones sunt, et remanent x anni, quibus x iunctis cum annis tribus milibus nongentis quinquaginta atque uno anno ab adam usque in annum nativitatis dominicae secundum supputationem Ebreorum fiunt iiia milia nongenti sexaginta unus. Nongenti quater et tricenti sexaginta sicut constant in trigenis sic et indictionibus, permanet unus, quia autem a fine indictionum contra a nobis usque ad Adam computavimus unus, qui remanet xva est indictio. Ab adam igitur usque ad ciclum incarnationis iuxta Dionisium sunt anni quatuor milia et ducenti iii, qui sunt octo magni cycli paschales minus quinquaginta tribus annis qui ante Adam de primo magno ciclo paschali defuerant.'

between the Hebrew Creation era on the one hand (AM 3952 = 253 BC) and Bede's own (AM 4213 = AD 9) on the other.

Finally, at the end of this chapter Marianus referred to a 532-year table of concurrents.⁴³ There the date of Creation was no longer given as the fifty-fourth year, but rather as the first year (AM 1 = 1/532). Consequently the dates of Christ's Birth and Passion according to the Hebrew verity (AM 3952) were converted to the 228th year and the 262nd year, respectively, in this 532-year table of concurrents.⁴⁴ For the Septuagint era of Eusebius-Jerome (AM 5199) and for the Greek Creation era (AM 5500), Marianus made a similar conversion.⁴⁵ Based on the luni-solar logic

⁴³ Vatican City, BaV, MS Palatinus 830, fol. 35^v: 'Ecce ergo ciclus magnus concurrentium quem constituit sanctus Beda ad ostendendam diversitatem dominicae nativitatis et passionis iuxta Ebreos, Eusebique cronicam quam sanctus transtulit Hieronimus, atque Grecos, necnon ut notaret damnum annorum qui desunt secundum hos omnes ab anno quo mundus creatus est usque ad nativitatem vel passionem dominicam nihilominus ut manifestaret de passione et resurrectione Christi controversiam cronicarum contra sacram evangelii historiam.' Note again the resemblance in title of Dungal's tract *De anno magno* (*Annus magnus de concurrentibus compositus ad ostendendam diversitatem nativitatis et passionis Domini*). This 532-year table of concurrents does not appear in London, BL, MS Cotton Nero C V.

⁴⁴ Vatican City, BaV, MS Palatinus 830, fol. 35^v: 'Hic annus caput saeculi est et primus annus etiam sequentis cicli, indictio x, epacte xv, concurrentes vii, cicli lunae xiii annus, terminus paschae xii kal. apr., pascha viii. kal. apr., luna xviii in anno conditionis saeculi continetur. Ex hoc anno in quo conditus est Adam usque in annum ducentessimum quingentesimum tertium ante incarnationem secundum Dionissium sancto Beda astante sunt anni tria milia nongenti quinquaginta duo, sicut in sequente ciclo constituit. Ecce ergo sicut constituit sanctus Beda in anno ducentesimo vigesimo octavo sequentis cicli in quo contigit dominica nativitas supputando ab anno praedicto conditionis saeculi iii milia dcccclii usque ad Christum quattuor concurrentes, atque in anno ducentesimo sexagesimo secundo eiusdem cicli qui est annus passionis dominicae secundum praedictam rationem, concurrentes quatuor similiter continentur.'

⁴⁵ Vatican City, BaV, MS Palatinus 830, fol. 35^v: "Si vero ab adam usque [ad] nativitatem Domini quinque milia centum nonaginta ix annos habere volueris et supputationem eorumdem annorum secundum praedictam rationem per concurrentes et terminos compleveris, habebis anno nativitatis Domini terminum paschae xiiii kal. mai. et concurrens unus, anno vero passionis terminum iiii non. apr. et concurrentes duo." Haec Beda. Ecce item notata est etiam ipsa nativitas in anno quadringentesimo undecimo praedicti cicli, et passio in anno quadringentesimo quadragésimo quinto eiusdem cicli. Hec autem computatio facta est secundum cronicam Eusebii quam sanctus Hieronimus transtulit. "Si autem ab adam usque ad Christum secundum Grecos annorum quinque milia quingentorum pronuntiaveris, eosque secundum ipsam praedictam regulam computaveris, eveniet tibi anno dominicae nativitatis terminus paschae xi kal. apr. et concurrentes septem, annoque passionis terminus non. apr. et concurrentes vii." Haec Beda. Hec etiam nativitas notata est in anno centesimo octagesimo cicli praedicti concurrentium, passio quoque in anno ducentesimo quartadecimo eiusdem cicli.'

of a 532-year table of concurrents, Marianus concluded that none of these three Creation eras agreed with the gospel verity.⁴⁶ In this 532-year table of concurrents, Marianus had marked a total of thirteen different years. It is noteworthy in this respect that Marianus did indicate the date of the Incarnation according to the gospel verity (22 BC = 1 VA), but not the date of the Passion (AD 12 = 34 VA), even though his chronological correction rested on this equation.

Table 22

<i>x</i> / 532		<i>AM</i>	<i>AD</i>	<i>VA</i>
1/532	Caput mundi iuxta Bedam	AM 1	4204 BC	
180/532	Incarnatio secundum Grecos	AM 5500		
214/532	Passio secundum Grecos	AM 5534		
228/532	Incarnatio secundum Ebreos	AM 3952	253 BC	
262/532	Passio secundum Ebreos	AM 3986		
411/532	Incarnatio secundum cronicam Eusebii	AM 5199		
445/532	Passio secundum cronicam Eusebii	AM 5233		
459/532	Incarnatio vera secundum sacri evangelii	AM 4183	22 BC	1 VA
477/532	Incarnatio secundum cronicas Eusebii et Bede	AM 4201	4 BC	19 VA
480/532	Ciclus magnus incipit	AM 4204	1 BC	22 VA
481/532	Incarnatio iuxta Dionisium	AM 4205	AD 1	23 VA
489/532	Incarnatio iuxta testificationem Bede	AM 4213	AD 9	31 VA
[492/532]	[Passio vera secundum sacri evangelii]	[AM 4216]	[AD 12]	[34 VA]
522/532	Passio iuxta testificationem Bede	AM 4246	AD 42	64 VA

In his eighth chapter, Marianus added a final chronological element to this calculation, namely the indiction. Bede had already posited that the date of Christ's Birth according to Dionysius (AD 1) had an indiction of 4.⁴⁷ Based on this, Marianus calculated that the date of Creation (4204 BC) had to have an indiction of 15.⁴⁸

⁴⁶ Vatican City, BaV, MS Palatinus 830, fol. 36': 'In primo anno ergo loco in ciclo concurrentium dominica nativitas secundum Grecos, in secundo autem loco iuxta Ebreos, in tercio secundum cronicam Eusebii quam transtulit Hieronimus habetur. Sed in his omnibus veritatis nihil continetur.'

⁴⁷ Beda Venerabilis, *De temporum ratione liber*, ch. 48.

⁴⁸ Vatican City, BaV, MS Palatinus 830, fol. 36': 'Cum itaque constanter sanctus Beda dicit annum conditionis saeculi xv kal. apr. die dominico incipisse et terminum paschae feria quarta qua etiam sidera creata sunt, concurrentibus vii, pascha vero viii kal. apr., luna xviii, atque inde usque in annum ducentessimum quinquagesimum tertium ante incarnationem iuxta Dionisium, qui est *annus nativitatis* secundum Ebreos annos iiii milia nongentos quinquaginta duos supputari, annum quoque incarnationis iuxta Dionisium secundum annum magni cicli paschalis constetisse quarta indictione, nonne evidenter et satis breviter exponit tacite caput mundi indictione xva fuisse, et inde usque ad ciclum incarnationis iuxta Dionisium iiii milia ducentos tres annos numerari?'

With this extra piece of data he was able to fix the Creation of the world with computistical accuracy in the fifty-fourth year of a 532-year luni-solar cycle (54/532).⁴⁹ The three remaining years with the same luni-solar parameters, that is, 149/532, 396/532, and 491/532, have a different indiction and were no longer under consideration.⁵⁰ Marianus shifted all possible criticism of this argument on to Bede.⁵¹ Ultimately Marianus counted exactly 4203 years from the Creation of the world (AM 1) to the beginning of a 532-year Dionysian cycle (AM 4204), or eight 532-year cycles minus fifty-three years.⁵² In this way Marianus had created a complete computistical conceptual framework that comprised all of world history.⁵³ He even calculated the indiction for the first year of the very first 532-year cycle (AM -53).

⁴⁹ Vatican City, BaV, MS Palatinus 830, fol. 36^v: 'Caput autem mundi aliter esse non potest nisi in anno xvi decennovennalis cycli concurrentes septem et terminum paschalem xii kal. apr. habens indictione xva, quod quatuor vicibus excepta indictione in omni magno ciclo paschali continetur. Primi quidem magni cycli in anno quinquagesimo quarto quo conditus erat Adam vel mundus indictione quintadecima Beda attestante, et in anno centissimo quadragessimono eiusdem magni cycli indictione quinta qui est annus nonagesimus sextus conditionis saeculi, in anno item tricentissimo nonagesimo vi cycli eiusdem indictione duodecima qui est annus tricentissimus quadragessimus tertius conditionis saeculi, in anno quoque quadringentissimo nonagesimo primo praedicti cycli qui est indictione secunda qui est annus quadringentissimus trigesimus octavus conditionis saeculi. Caput autem mundi non convenit in ullo ex his annis nisi tantum in praedicto anno, si praedicta ratio servetur.'

⁵⁰ Von den Brincken claims here that Marianus forgot a fifth possibility, namely 206/532: von den Brincken, 'Marianus Scottus', p. 230 n. 6. The claim is specious, because this year does not have the requisite concurrent 7, but rather concurrent 1.

⁵¹ Vatican City, BaV, MS Palatinus 830, fol. 36^v: 'Ergo Bedam dente canino non nos increpat, qui haec culpae sollicitat.'

⁵² Vatican City, BaV, MS Palatinus 830, fol. 36^v: 'Ab adam ergo ad ciclum incarnationis secundum Dionisium sunt octo cycli magni nimirum minus quinquaginta iibus annis qui deerant ante Adam de primo praedictorum octavo paschali circulo.'

⁵³ Vatican City, BaV, MS Palatinus 830, fol. 36^{r-v}: 'Primus ergo magnus cyclus in cuius anno quinquagesimo quarto conditus est Adam indictione xva sicut antea notatum est, si initium haberet, indictione incipisset viia. Secundus magnus cyclus indictione incipit quartadecima. Tertius cyclus indictione via. Quartus cyclus indictione tertidecima. Quintus quinta. Sextus duodecima. Septimus magnus cyclus indictione quarta. Octavus indictione unodecima. Nonus magnus qui cyclus incarnationis est secundum Dionissium indictione incipit tertia, in cuius secundo anno iuxta Dionissium natus est Dominus indictione quarta quae incipiebat octavo die kal. oct. Ibi enim indictiones incipiunt et finiuntur. Decimus magnus cyclus qui est Dionisii indictione decima. Undecimus magnus cyclus in cuius anno xiii [corr. nono] sumus, modo indictione decima, secunda indictione inceptit.'

Table 23

	<i>AM</i>	<i>AD</i>	<i>Indiction</i> <i>in 1/532</i>	
1	AM -53 – AM 479	4257 BC – 3726 BC	7	° Adam in 54/532 (indiction=15) → 54/532 = AM 1 = 4204 BC
2	AM 480 – AM 1011	3725 BC – 3194 BC	14	
3	AM 1012 – AM 1543	3193 BC – 2662 BC	6	
4	AM 1544 – AM 2075	2661 BC – 2130 BC	13	
5	AM 2076 – AM 2607	2129 BC – 1598 BC	5	
6	AM 2608 – AM 3139	1597 BC – 1066 BC	12	
7	AM 3140 – AM 3671	1065 BC – 534 BC	4	
8	AM 3672 – AM 4203	533 BC – 2 BC	11	
9	AM 4204 – AM 4735	1 BC – AD 531	3	° Christ in 2/532 (indiction=4) → 2/532 = AM 4205 = AD 1
10	AM 4736 – AM 5267	AD 532 – AD 1063	10	
11	AM 5268 – AM 5800	AD 1064 – AD 1595	2	<i>annus praesens</i> in 9/532 (indiction=10) → 9/532 = AM 5276 = AD 1072

In Chapter 9, Marianus repeated his claim that the world was created on Sunday 18 March.⁵⁴ Consequently, the heavenly bodies were created on the day of the vernal equinox (21 March).⁵⁵ God created man last, namely on Friday 23 March.⁵⁶ Finally, in Chapter 10, Marianus provided an overview of his computistical calculations. He corrected the Hebrew Creation era (AM 3952) by no fewer than 230 years and counted 4182 years from the Creation to the Birth of Christ according to the gospel verity (1 VA = AM 4183).⁵⁷ He further reckoned 4203 years from

⁵⁴ Vatican City, BaV, MS Palatinus 830, fol. 36': 'Primo die etiam dominico quintodecimo die kal. apr. lucem de nihilo condidit, atque caelum caeleste cum angelis suis omnibus tunc valde bonis.' See also Marianus Scottus, *Chronicon*, 1:6.

⁵⁵ Vatican City, BaV, MS Palatinus 830, fol. 36': 'Quarto die, id est quarta feria duodecimo kal. apr. die, luminaria caeli de primo die facto, solem quidem die incipiente hoc est in equinoctio vernali creavit in quarta parte arietis consitutens. Lunam quoque eodem die vespere plenam orientis a medio apparentem formavit, qua quartam partem Librae hoc est equinoctium autumnale tenuit, initiumque paschalis lunae hoc est xv suo exitu consecravit.'

⁵⁶ Vatican City, BaV, MS Palatinus 830, fol. 37': 'Sexto autem die, id est vi feria decimo kal. apr. [...] Ipso etiam die vi videlicet feria decimo die kal. apr. in quo Adam creavit Dominus de laterade dormientis, patris humani generis costam tollens, construit in mulierem matrem omnis humani generis quae Eva vocabatur.'

⁵⁷ Vatican City, BaV, MS Palatinus 830, fol. 37': 'Hinc usque in mensem martii in anno xl secundo Octaviani cesaris augusti in cuius fine natus est Dominus teste auctoritate, sunt anni nimirum quatuor milia centum octoginta duo, id est cccxx annis plus quam summa Ebreorum.'

the Creation to the first year of a 532-year Dionysian cycle (1 BC = AM 4204).⁵⁸ Moreover, the date of Christ's Birth fell in the twenty-third year according to Dionysius, following the gospel verity (AD 1 = 23 VA). Finally, for the first time Marianus explicitly fixed the date of Christ's Passion according to the same gospel verity (34 VA = AM 4216).⁵⁹ In so doing he explicitly dissociated himself from all earlier written chronicles.

The pre-Christian period from a chronographic perspective (11–22). In the next twelve chapters (11–22), Marianus provided a world history of the first five *aetates*. It was after all Marianus's intention to recover the missing 230 years in the Hebrew verity computistically, as well. This correction was ultimately applied in the second *aetas*, namely in the period from the Great Flood to the incarnation of Abraham. Generally speaking, Marianus preferred the Hebrew verity (AM 3952) to the Septuagint reckoning (AM 5199). He based this view primarily on pronouncements by Augustine of Hippo.⁶⁰ Moreover, when it came to the second *aetas* this Church Father had expressed his preference for the so-called Samaritan Creation era (1072 years) at the expense of the Hebrew Creation era (292 years).⁶¹

⁵⁸ Vatican City, BaV, MS Palatinus 830, fol. 37^r: 'Usque autem ad magnum ciclum paschalem in cuius secundo anno iuxta Dionissium natus est Dominus hoc est in anno vigesimo tertio dominicae nativitatis secundum historiam evangelii, sunt anni iiii milia ducenti iii.'

⁵⁹ Vatican City, BaV, MS Palatinus 830, fol. 37^r: 'Usque vero in passionem Christi viii kal. apr. feria sexta lunae quintadecima iuxta historiam sancti evangelii cui contradicunt cunctae cronicae, sunt anni quatuor milia ducenti sex et decem.'

⁶⁰ Vatican City, BaV, MS Palatinus 830, fols 40^v–41^r: 'Sem filius Noe cum c annorum in diluvio esset biennio post diluvium genuit Arfaxat, et postea vixit d annis, quod uero ebraicae veritatis potius auctoritatem quam lxx interpretum credamus. Cum originem distantiae ipsarum sanctus Augustinus solertissime quaessisset in libro de ciuitate dei xv° capitulo xiii° ita dicit: "Credibilis ergo quis dixerit cum primum de biblioteca Ptolomei describi ista ceperunt, tunc aliquid tale erroris fieri potuisse in codice uno, sed primitus inde descripto, unde iam latius emanaret, ubi potuit quidem accidere etiam scriptoris error sed et hoc in illa quaestione de vita Mathusalem non absurdum est suspicari." Et post aliquanta: "Recte fieri inquit nullo modo dubitauerim ut cum diuersum aliquid in utrisque codicibus invenitur quando quidem ad fidem rerum gestarum utrumque esse non potest verum ei linguae potius credatur, unde in aliam per interpretes facta est translatio." Haec Augustinus.' See also Augustine of Hippo, *De civitate Dei*, 15:13.

⁶¹ Vatican City, BaV, MS Palatinus 830, fol. 41^r: 'De corruptione autem aetatis secundae secundum Ebreos tota eiusdem sirie recensita beatus Augustinus in libro de ciuitate dei xvi capitulo x sic concludit: "Fiunt itaque anni a diluvio usque ad Abraham mxxii secundum vulgatam editionem, hoc est interpretum lxx. In Ebreis autem codicibus longe pauciores annos prohibent inueniri. De quibus rationem aut nullam aut difficillimam reddunt.'" On the Samaritan Creation era, see

Marianus carried out this calculation and ascertained that in that case 780 years had to be added to the Hebrew Creation era ($3952 + 780 = 4732$).⁶² He rejected this calculation, however, on computistical grounds. Such a Creation era would not, after all, result in the correct date of Christ's Passion according to the gospel verity.⁶³ Ironically, Marianus based the absolute truth of the Gospels on other remarks by Augustine of Hippo.⁶⁴

Ultimately Marianus found the key to his own chronographic correction in Luke. Contrary to the Hebrew genealogies, this evangelist did mention Cainan between Arphaxat and Sale.⁶⁵ In his chronicle, Bede, too, had already pointed out this lacuna in the Hebrew Creation era.⁶⁶ The fact that according to the Septuagint reckoning this missing link, Cainan, was 130 years old before he continued the generation was exactly what Marianus was searching for to explain the missing 230 years. He had already ascertained that in the extant genealogies the Septuagint reckoning often gave exactly one hundred years more for a given ancestor than did

Gerhard Larsson, 'The Chronology of the Pentateuch: A Comparison of the Masoretic Text and the Septuagint', *Journal of Biblical Literature*, 102 (1983), 401–09 (p. 403).

⁶² Vatican City, BaV, MS Palatinus 830, fol. 41^r: 'Oblatis igitur annis ducentis nonaginta duobus secundae aetatis iuxta Ebreos, et subductis annis mxxii secundae aetatis secundum lxxa interpretes in loco eorum, fiunt vulgariter hac emendatione sancti Augustini anni iiii milia dccxxxi ab adam usque in annum quintum ante incarnationem iuxta Dionisium, hoc est usque ad incarnationem secundum cronicam Eusebii vel Bedae, qui sunt octo cicli magni atque mii quadraginta septuaginta vi anni.'

⁶³ Vatican City, BaV, MS Palatinus 830, fol. 41^r: 'Quae emendatio stare omnino non potest quia nec caput mundi iuxta ullam auctoritatem neque etiam dominica passio uel resurrectio iuxta euangelium unquam ita habebitur.'

⁶⁴ Vatican City, BaV, MS Palatinus 830, fol. 41^r: 'De quo etiam sancto evangelio idem ipse sanctus Augustinus in concordia iiii evangelistarum capitulo xii multum ita dicit: "Cum enim fas non est evangelistarum aliquae mentitum fuisse vel etiam existimare vel dicere", si alius eorum dicit quod alius praetermittit vel varie aut aliter dixit quod alius expressit, nullus eorum mendacium dixit. Haec Augustinus.' See also Augustine of Hippo, *De consensu evangelistarum*, ed. by Franz Wehrich, Corpus Christianorum Series Latina, 43 (Turnhout, 1904), 2:12.

⁶⁵ Vatican City, BaV, MS Palatinus 830, fol. 41^r: 'Lucas evangelista sic: "Qui fuit Sale, qui fuit Cainan, qui fuit Arfaxat."' See also Luke 3. 35–36.

⁶⁶ Vatican City, BaV, MS Palatinus 830, fol. 41^r: 'Sanctus Beda sic: "Hic Lucas dicit secundum lxx interpretes qui hic unam generationem plus quam ebraica veritas possuerunt, quod Arfaxat cum esset annorum cxxv genuit Cainan, et Cainan cum cxxx fuerat annorum genuerat Sale." Haec Beda.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 1693).

the Hebrew verity.⁶⁷ With this fact in mind, Marianus had set out in particular to find a gap of 130 years in the Hebrew Creation era. In this way he could readily find the missing 230 years between the date of Christ's Birth according to the Hebrew verity, on the one hand (AM 3952 = 253 BC), and the date of Christ's Birth according to the gospel verity on the other (AM 4183 = 22 BC = 1 VA).⁶⁸

Ultimately Marianus added one hundred extra years to Arphaxat and 130 new years to Cainan.⁶⁹ Consequently the Second Age lasted a total of 522 years instead of 292, and he reckoned 4182 years from the Creation of the world (AM 1) to the date of the Birth of Christ (AM 4183).⁷⁰ Finally, in the last chapter of his first book Marianus did the math for the entire pre-Christian period.⁷¹

⁶⁷ For example the case of Adam: 'Adam centum triginta annorum genuit Seth et postea vixit dccc annis. Sed septuaginta interpretes ante natum Seth dixerunt annos ccxxxa et postea annos dcc' (Vatican City, BaV, MS Palatinus 830, fol. 37'). See also Larsson, 'Chronology of the Pentateuch', pp. 402–03.

⁶⁸ Vatican City, BaV, MS Palatinus 830, fol. 41': 'Hic igitur iuxta consecratam sancti evangeli historiam Luca teste ducenti xxx anni qui desunt in dominicam nativitatem secundum Ebreos in anno ducentissimo quinquagesimo iii ante incarnationem iuxta Dionissium et dominicam nativitatem iuxta evangelicam historiam eandem in anno xlii Octaviani caesaris in anno vigessimo secundo ante incarnationem iuxta Dionissium habentur et sic secundum eiusdem evangelii veritatem in qua nihil falsitatis testificatur, non exestimatur nec creditur, resurrectio Christi recte secundum ebraicam et evangelicam veritatem vi kal. apr. invenitur.'

⁶⁹ Vatican City, BaV, MS Palatinus 830, fol. 41': 'Subtracta itaque generatione Arfaxat secundum Ebreos, id est annis xxxv de aetate secunda etiam secundum Ebreos et postea introducta generatione eiusdem Arfaxat secundum lxx interpretes, id est cxxxv, necnon etiam generatione Cainan secundum lxxa interpretes, id est cxxx, assumuntur ducenti triginta quinque anni pro annis lx quinque et fit secunda *aetas* annis dxxii.'

⁷⁰ Vatican City, BaV, MS Palatinus 830, fol. 41': 'Quia ergo antea tria milia nongenti quinquaginta duo anni, id est iiii magni cicli et ccxxviii anni ab adam usque ad nativitatem Domini secundum Ebreos teste Beda fuerant, ipsis adde annos ducentos triginta supradictos secundum Lucam, fiunt m̄ccclxxxiio anni qui sunt iiii magni cicli et insuper ccclviii anni usque xv kal. apr. quod est caput mundi in anno in quo natus est Dominus.'

⁷¹ Vatican City, BaV, MS Palatinus 830, fols 70^v–71^r: 'Ab adam usque egressum Noe de archa computantur anni iuxta ebraicam veritatem mille sexcenti quinquaginta sex et generationes x. A diluvio uero usque ad Abraham secundum Ebreos supputantur anni ducenti nonaginta duo. Quae etiam summa a sancto Augustino ceterisque senioribus propter nimiam suam brevitatem recussatur. A diluvio ergo secundum Ebreos cum adiectione euangelistae Lucae dicentis qui fuit Sale qui fuit Cainan, numerari possunt usque ad Abraham anni quingenti xx duo et generationes xi. Ab Abraham usque ad David secundum Ebreos supputantur anni nongenti quadraginta duo generationes quatuordecim. A David usque kal. apr. ante quas combustum est templum mense augusto secundum Ebreos sunt anni quadringenti septuaginta iii et generationes xvii, quas tamen evangelista

Table 24

	<i>Hebrew Creation era</i>	<i>Marianus</i>	
<i>Aetas I</i> (Adam – Great Flood)	1656	1656	
<i>Aetas II</i> (Great Flood – Abraham)	292	522	+ 230
<i>Aetas III</i> (Abraham – David)	942	942	
<i>Aetas IV</i> (David – Babylonian Captivity)	473	473	
<i>Aetas V</i> (Babylonian Captivity – Christ)	589	589	
<i>Aetates I–V</i> (Adam – Christ)	3952	4182	+ 230

Von den Brincken erroneously identifies two further corrections by Marianus in the fourth *aetas*, namely a correction of ten years for Amon (twelve instead of two years) and a correction of one year for Iosias (thirty-two instead of thirty-one years). By adding these eleven extra years to the 230 years from the second *aetas*, she suggests a correction for the pre-Christian period totaling 241 years (4193 instead of 3952 years).⁷² These eleven extra years are found in Book II and thus have no influence whatsoever on the chronological corrections in Book I (AM 4183 = 22 BC = 1 VA).⁷³ Marianus is thus much more consistent in his calculations than von den Brincken gives him credit for in her articles.

Conclusion for Book I: A correction of 230 years (AM 4183 = 1 VA). The first ten chapters of this first book constitute a computistical whole in which Marianus systematically comments on his historical sources. He first cites ‘Dionysius’, that is, pseudo-Morinus of Alexandria, who fixed the date of Christ’s Passion on 27 March (luna xvi). Based on the Gospels, however, Marianus replied that the Last Supper had indeed taken place on luna xiv. He subsequently confronted the

Matheus certi misterii gratia xiiii connumerat. [. . .] A xv die kal. apr. in quo caelum terramque creavit Deus dominico die usque ad diem xvum kal. earundem ante nativitatem Domini sunt necessaria ratione divinae scripturae etiam atque etiam anni quatuor milia centum octoginta duo. [. . .] Ab adam ad diluvium idclvi, a diluvio ad Abraham dxxii, ab Abraham ad David dccccxlii, a David ad captivitatem cccclxxiii, a captivitate ad Christum dlxxxix.’

⁷² Von den Brincken, ‘Marianus Scottus’, p. 206, and von den Brincken, ‘Marianus Scottus als Universalhistoriker’, pp. 997–98.

⁷³ Vatican City, BaV, MS Palatinus 830, fol. 75r: ‘Dum ipse [=Beda] secundum ebraicam veritatem huc usque suam cronicam composuit, nunc autem dominicam nativitatem iuxta septuaginta interpretes et olimpiades Graecorum commendat. Nisi enim modo Amon annis xii secundum lxx interpretes quem antea duobus annis secundum Ebreos supputavit, et Iosiam xxxii annis quem antea xxx et uno anno secundum Ebreos supputavit numeraret, nequaquam modo xii annos plus haberet in quinta aetate quam ebraica veritas testatur.’

synodal acts of pseudo-Theophilus with Bede's theories on the date of the Creation of the world. In his reference work on the subject Marianus stumbled upon the tract *De anno magno* by Dungal of St Denis, erroneously attributed to Bede. This text fixed the date of Creation in the fifty-fourth year of a 532-year luni-solar cycle ($AM\ 1 = 54/532$). On these grounds Marianus rejected all existing Creation eras and calculated that Christ was born in $AM\ 4183 = 22\ BC = 1\ VA$. In so doing he went counter to every other previously written chronicle. As far as the date of Christ's Passion was concerned, Marianus preferred the Latin tradition (AD 12) to the Greek tradition (AD 42). In this respect, then, Marianus disagreed with no one other than the Venerable Bede. In his second book, however, Marianus would provide an entirely unique solution to this problem of *auctoritas*.

In the second part of this first book, Marianus attempted to legitimize his computistical correction chronographically, as well. An initial correction of 780 years based on Augustine was rejected because the resulting date of Christ's Passion was not chronologically defensible. This argument illustrates clearly the superiority of chronology over chronography. Marianus ultimately filled the lacuna of 230 years in the Hebrew Creation era in the second *aetas*, namely by adding one hundred extra years to Arphaxat and 130 years to Cainan. For this Marianus referred to the source with the highest authority, namely the Gospel (Luke 3. 35–36), but in fact for both ancestors he relied on the numbers in the Septuagint reckoning. With this correction of 230 years Marianus had created a balanced chronological and chronographical timeframe for the pre-Christian period.

Liber secundus: Ab incarnatione usque in ascensionem Domini

Dating Christ's life from a computistical perspective (1–8). The second book of Marianus's chronicle is without doubt the least studied volume. It has been characterized as a dense and virtually unreadable series of scriptural quotations and patristic texts concerning the life of Jesus on earth.⁷⁴ A systematic study of its contents reveals, however, that this view is inaccurate. As he had done in the first book, Marianus here alternates borrowed passages with his own original commentary and calculations. We may therefore go so far as to posit that never before has Jesus's life on earth been studied so thoroughly from a computistical perspective as it is in this second book.

In Chapter 1 Marianus studies the conception and incarnation of John the Baptist. He first establishes that the priest Zachariah was addressed on the day of

⁷⁴ Von den Brincken, 'Marianus Scottus', p. 204.

reconciliation by the archangel Gabriel, who prophesied the incarnation of his son John (Luke 1. 5–25). Because the day of reconciliation always fell on the tenth day of the seventh month (Lev. 23. 27) and because Zachariah only returned home after his service in the temple (Luke 1. 23), Marianus concluded that John was conceived some days after the day of reconciliation, namely on luna xi.⁷⁵

In Chapter 2 Marianus linked this piece of chronological data to the gospel certainty that Christ had died on luna xv.⁷⁶ He now possessed two chronological anchor points: on the one hand John had been conceived on luna xi in the year before the Birth of Christ (Luke 1. 26), on the other Christ Himself had died on luna xv. Subsequently Marianus attempted to link the correct dates to these luni-solar data. To this end he first used the traditional date for the conception of John, namely 24 September (luna xi), and tried to link this to Christ's Resurrection, using either the Greek tradition (25 March) or the Latin tradition (27 March).⁷⁷ In both cases, however, the chronological reckoning proved inaccurate: the Greek tradition produced AD 8 ($AD\ 42 - 33 - 1 = AD\ 8$), in which the Paschal term (luna xiv) fell on 7 April and consequently the conception of John on 28 September (luna xi). The Latin tradition produced 23 BC ($AD\ 12 - 33 - 1 = 23\ BC$), in which the Paschal term (luna xiv) fell on 9 April and consequently the conception of John on 30 September (luna xi).⁷⁸ Marianus was thus compelled to search for an acceptable solution to this difficult problem. He decided next to date the conception of John according to the Latin tradition, namely on Thursday 30 September (luna

⁷⁵ Vatican City, BaV, MS Palatinus 830, fol. 71^v: 'Conceptus est Iohannis incipiente luna xia, quando oportebat Iudeos ieiunium scenophegiae celebrare.' See also Beda Venerabilis, *In Lucae evangelium expositio*, ed. by Jacques-Paul Migne, Patrologia Latina, 92 (Paris, 1850), cols 301–634, 1:1.

⁷⁶ Vatican City, BaV, MS Palatinus 830, fol. 72^v: 'Sicut itaque xva luna secundum evangelium Dominum fuisse passum certum est, sic Gabrielem luna xa mensis vii promissione Iohannem Zachariae secundum Lucam consequens est. Quia vero eadem die ultima festivitatis sui officii vice completa domum abiit, conceptionem Iohannis esse xia luna mensis septimi, id est octobris rationabile est.'

⁷⁷ For the traditional dating of John's conception on 24 September, see the Introduction, the subsection on 'The Greek Tradition (Resurrection = 25 March)' under 'The Dates of Christ's Birth and Passion: The Search for the Year of Christ's Passion'.

⁷⁸ Vatican City, BaV, MS Palatinus 830, fol. 72^v: 'Cum autem iuxta iiii evangelia xv luna Dominum passum esse certissimum est, et in anno ante nativitatem Domini secundum Lucam conceptionem Iohannis fuisse verissimum est, si octavo die kal. apr. resurrexit Dominus secundum Bedam nequaquam conceptio Iohannis in octavo die kal. oct. luna xia sed quarto die postea; si vero sexta die kal. apr. Dominus resurrexit sicut ecclesia celebrat, in sexta die post viii kal. oct. luna xia undecima inveniri poterit.'

xi).⁷⁹ Marianus considered the fact that John, the precursor to Christ, was thus conceived and born a weekday earlier than Christ Himself as validation of his choice of the Latin tradition.⁸⁰

Table 25

	<i>Conception</i>	<i>Birth</i>
John the Baptist	Thu. 30/9/23 BC	Fri. 24/6/22 BC
Jesus Christ	Fri. 25/3/22 BC	Sat.–Sun. 25/12/22 BC

Consequently, nine full moons had not transpired between John's conception and incarnation. Augustine confirmed, however, that this had been the case with Jesus. Moreover, according to Augustine Christ had been conceived and died on the same date (25 March).⁸¹

Subsequently, in Chapter 3, Marianus examined the Annunciation of Mary (Luke 1. 26–38) and Mary's visit to Elisabeth, the mother of John the Baptist (Luke 1. 39–45). In Chapter 4 Marianus dated the Annunciation of Mary precisely, to Friday 25 March (luna x) in the forty-second regnal year of Augustus, in the thirty-first regnal year of Herod the Great (d. 4 BC), and in the penultimate year of a nineteen-year cycle (18/19).⁸² These chronological facts agreed with the 512th year of a 532-year cycle (=22 BC).

⁷⁹ Vatican City, BaV, MS Palatinus 830, fol. 72^v: 'Sciendum est ergo duobus modis Iohannis conceptionem esse: primo octavo kal. oct. usualiter ut ecclesia celebrat, hoc est ratione naturalis temporis novem mensium qua infans inveniente matris suae debet portari numerando versus supra a nativitate eius ad octavo kal. oct.; secundo vero re iuxta Lucam certi misterii gratia die xia mensis septimi, id est pridie kal. oct. ut videtur luna xia, feria quinta convenienter conceptus est.' In the year of John's conception according to the Latin tradition (23 BC), the concurrent was 4, and thus 24 March fell on a Wednesday. Consequently in that same year 30 September fell on a Thursday.

⁸⁰ Vatican City, BaV, MS Palatinus 830, fol. 72^v: 'Ita enim oportebat, ut praecor et propheta ac praecursor regis feria va conciperetur, feriaque via nasceretur. Imperator autem atque promissor et Dominus feria via octavo kal. apr. conciperetur, et in sabato sancto, id est nocte sabati quae tunc sequebatur diem, iii autem ipsa est diei dominici nox nasceretur. Sicut ergo Iohannem Christum praedicando baptizando et ad inferos descendendo praeire, sic concipiendo et nascendo conveniebat.'

⁸¹ Vatican City, BaV, MS Palatinus 830, fol. 72^v: 'Minutus est tempore nativitatis, cum minus sex diebus mensibus novem natus. Dominus vero ix menses integros sicut tractat sanctus Augustinus in libro sanctae trinitatis ab viii kal. apr. quo conceptus et passus est feria via usque in octavo kal. ian. quo natus est in nocta sancti sabbati complevit.' See also Augustine of Hippo, *De trinitate*, 4:5.

⁸² Vatican City, BaV, MS Palatinus 830, fol. 72^v: 'Haec autem dominica conceptio facta est in principio anni quadragessimi secundi Octaviani caesaris augusti, Herodis vero regis Iudeorum xxx primo anno, octavo decimo etiam cycli decennovenalis, octavo die kal. apr. feria vi luna xa, sicut ex circumscriptione sacrae scripturae et auctoritate ecclesiae coniecitur.'

Next, in Chapter 5, Marianus linked the Conception of Christ to the week of Creation. He consistently regarded Christ as the 'second Adam' and did not consider it a coincidence that His Conception occurred on the same date and day of the week as the Creation of the 'first Adam', namely on 23 March.⁸³ Moreover, Adam was banished from the earthly paradise on this very same day.⁸⁴ Chapter 6 of Marianus's Book II dealt logically enough with the Birth of Christ. He repeated the claim first posited in Chapter 4, namely that Christ was born on 25 December in the forty-second regnal year of Augustus. Moreover he posited that Christ was born with indiction 12 on the night of Saturday to Sunday.⁸⁵

In Chapter 7, Marianus made a leap forward in time. Here he concentrated on the important issue of Christ's age and the precise date of His Passion.⁸⁶ According to Eusebius's chronicle, Christ had died in the third year of the 202nd Olympiad (202/3). In that same chronicle the forty-second regnal year of Augustus was dated to the third year of the 194th Olympiad (194/3).⁸⁷ A simple calculation revealed to

⁸³ Vatican City, BaV, MS Palatinus 830, fol. 73^r: 'Feria itaque sexta qua per invidiam diabuli Adam primus bonitatem obidientiae exivit, eadem die aetate via saeculi caritate dei omnipotentis secundus Adam ipsam humanam induit carnem, qua praetio sui sanguinis primus redemit.'

⁸⁴ Vatican City, BaV, MS Palatinus 830, fol. 73^r: 'Et feria qua homo transgressionis condemnatione mortis de loco deliciarum in loco miseriae et peregrinationis sit expulsus, eadem feria de caelo descendit creator omnium in hoc valle lacrimarum, minoratus paulominus ab angelis eundem induens hominem, eademque die de profundo inferni redimens ad dexteram suam in caelum portaturus Dominum Deum omnium creaturarum atque iudicem potentem possiturus. Die in qua ovis errans in herimo periit, eadem de sinu patris pastor missus est salvare quod perierat. Die qua primus homo peccato factus est vetus, eadem die secundus factus est novus pereuntem renovans veterem. Die qua clausa est porta paradissi persuasionem diaboli in aurem mulieris contra primum hominem, eadem salutatione Gabrielis in aure mulieris Mariae ianua regni caelestis aperta est per angelum exercituum induens pulverem nostrum. Dies etiam mensis solaris videamus qualiter in ipsis diebus solaribus secundum Adam primum de morte redimit.'

⁸⁵ Vatican City, BaV, MS Palatinus 830, fol. 74^r: 'Haec etiam misteria sancta nativitatis Domini in anno xlii Octaviani caesaris Augusti indictione xii viii die kal. ian. dominica nocte gesta sunt.'

⁸⁶ Vatican City, BaV, MS Palatinus 830, fol. 74^r: 'Ante quam autem dominicos annos numerum monstranda est a nobis prius quaedam controversia eorum qui extrinsecus videtur et si intrinsecus non invenitur. Legimus enim Dominum xxx duorum annorum ac dimedii anni, nec non xxx quatuor annorum passum fuisse.'

⁸⁷ Vatican City, BaV, MS Palatinus 830, fol. 74^{r-v}: 'Si igitur xxx duorum ac dimedii fuit passus, quo modo xxxiiii annorum passus? Vel si xxx duorum atque dimedii fuit passus, quo modo passus est in anno tertio olimpiadis ducentessimae secundae iuxta Eusebium Dominus, qui natus est in anno quadragessimo secundo Augusti, qui est annus iii centessimae nonagessimae quartae olimpiadis iuxta Eusebium, secundum vero Bedam centessimae nonagessimae tertiae olimpiadis est

Marianus that there were thirty-three years from Christ's Birth (194/3 = AD 1) up to and including His Passion (202/3 = AD 33).⁸⁸ Moreover, Marianus also counted thirty-three years from the forty-second regnal year of Augustus up to and including the eighteenth regnal year of Tiberius.⁸⁹ Despite the apparent discrepancies between the disparate sources, Marianus maintained that they were nevertheless correct.⁹⁰

Marianus settled the confusion once and for all in Chapter 8 of his second book. As far as Christ's Passion was concerned, he made an explicit distinction between an inclusive reckoning according to solar years on the one hand (AD 34) and a designation of Christ's age on the other (32.5).⁹¹ The Birth of Christ took place on 25 December at the end of the first solar year (AD 1) and thus the second solar year began at the moment that Christ was only seven days old.⁹² Consequently Christ ended his first year on earth only a few days before the end of the second solar year (AD 2).⁹³ Armed with this distinction, Marianus was seemingly able to explain the

annus tertius.' See also Eusebius and Jerome, *Chronicon*, Olymp. 194/3, and Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3952).

⁸⁸ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Olimpiades enim viii quatuor annis in unaquaque olimpiade i^o anno minus supputatis, xxx et unum annos efficiunt. Qui xxxi cum duobus annis olimpiadis in qua natus est Dominus, fiunt xxxiii.'

⁸⁹ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Si autem xxxiiii annorum passus est Dominus, quo modo qui natus est in anno quadragessimo secundo Augusti secundum Lucam passus est in anno xviii Tiberii iuxta Iohannem? Quia ambobus supputatis, id est annus quadragessimus secundus Augusti et xviii Tiberii, non fiunt nisi xxxiii anni, Dominus autem nec demedium anni passionis complevit ante passionem.' See also Luke 3. 1. Marianus here presumably linked the four paschas during Jesus's public life (Gospel according to John) to the beginning of Jesus's public life in the fifteenth year of Tiberius (Gospel according to Luke).

⁹⁰ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Haec omnia vera atque idem sunt, quam vis sibi in diversum venire videntur.'

⁹¹ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Sciendum est igitur duobus modis dominicos annos numerari nec non etiam nominari, primo modo secundum annos solares, secundo iuxta id quod complevit pleniter xii mensibus suae aetatis annum. Itaque anni nativitatis qui sunt secundum cursum solarem xxxiiii, atque aetatis anni qui sunt xxxii ac dimedius annus, Domini nominantur anni.'

⁹² Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Primus enim est annus nativitatis Domini secundum cursum solarem ipse in cuius fine viii die kal. ian. natus sit de quo non habuit iuxta aetatem, nisi tantum dies vii.'

⁹³ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Aetatis autem annum mensium xii in fine anni secundi nativitatis complevit. Et ita annos duos nativitatis secundum solem pene in primum annum aetatis suae consummavit.'

discrepancies in his sources, for Jesus would then indeed have died in His thirty-third year (*annus aetatis*) and in AD 34 (*annus nativitatis*).⁹⁴

Next Marianus attempted to link this distinction to the chronographical data mentioned above. Augustus began his reign in the month of March and consequently his forty-second regnal year also began in March.⁹⁵ This forty-second regnal year partially straddled the third and fourth years of the 194th Olympiad (194/3 and 194/4, respectively).⁹⁶ Marianus had after all read in Bede's *De temporibus* that the number of the Olympiad changed with the autumnal equinox (24 September).⁹⁷ Thanks to this small adjustment, Marianus could now posit that Christ had died in the eighteenth regnal year of Tiberius, more specifically in the fourth year of the 202nd Olympiad (202/4).⁹⁸ Based on both the regnal years and the Olympiads Marianus could thus demonstrate that Christ had died at 32.5 years of age, namely in his thirty-third year (*annus aetatis*) and in AD 34 (*annus nativitatis*).⁹⁹

On Sunday 6 January the twenty-nine-year-old Jesus was baptized in the Jordan, after which he immediately retreated into the desert, where he remained for forty days (Mark 1. 12–13). Given the great distance between the desert near the Jordan on the one hand and Cana (Galilea) on the other, Marianus next posited that the miraculous transformation of water into wine (John 2. 1–12) must have taken place a full year after Jesus's baptism.¹⁰⁰ Moreover John the Evangelist men-

⁹⁴ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'In anno itaque xxxiii aetatis, hoc est in xxxiii nativitatis suae Dominus passus sit.'

⁹⁵ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Annus autem xlii Octaviani caesaris in quo Dominus natus est teste Luca evangelista sicut a martio in quo Gaius Iulius caesar occisus est incipit ita et dissinit.'

⁹⁶ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Ideoque ut putamus initium suum in anno iii centissimae nonagessimae quartae olimpiadis iuxta Eusebium incipit et finem eius in anno quarto olimpiadis eiusdem in mense martii concludit.'

⁹⁷ Vatican City, BaV, MS Palatinus 830, fol. 74^v: 'Graeci enim qui primum olimpiades invenerunt, a solstitio brumali annum incipiunt teste Beda in libro de temporibus.' See also Beda Venerabilis, *De temporibus liber*, ch. 9.

⁹⁸ Vatican City, BaV, MS Palatinus 830, fols 74^v–75^r: 'Quia igitur Dominus in fine anni quadragesimi secundi Augusti, id est in principio anni quarti olimpiadis centissimae nonagessimae quartae natus est, recte in anno xviii Tiberii, cuius dimedius est in anno iii^o olimpiadis ducentessimae secundae fuit passus.'

⁹⁹ Vatican City, BaV, MS Palatinus 830, fol. 75^r: 'Item xxxi annus nativitatis in quo iuxta Hieronimum baptizatus sit, ipse idem est annus qui est xxx aetatis. Annus etiam xxxiii nativitatis in quo passus est, ipse est annus xxxiii aetatis.'

¹⁰⁰ Vatican City, BaV, MS Palatinus 830, fol. 75^r: 'Cum autem in die xiii anni xxx suae aetatis baptizatus est in die dominica epifaniae octavo id. ian. teste sancto Hieronimo et secundum

tioned three further paschas, from which it might be concluded that Christ had preached for a total of almost 3.5 years, namely from January of the first year of His preaching (10/19) up to and including March of the fourth year of His preaching (13/19).¹⁰¹ In this context Marianus once again repeated his support for the Latin tradition, which dated Christ's Passion to 25 March AD 12 (luna xv).¹⁰²

As an appendix to this important eighth chapter, Marianus added a study of the structure of Bede's chronicle. He concluded that Bede had followed the Hebrew verity for the first five *aetates*, but had switched over to Eusebius's Septuagint reckoning for the sixth and final *aetas*.¹⁰³ For the Christian period Marianus would consequently lay both chronicles side-by-side and refer systematically to the 'chronicle of Eusebius and Bede'. For the pre-Christian period, Marianus noted two small adjustments in Bede's chronicle as opposed to the Hebrew verity, namely for Amon (twelve instead of two years) and for Iosias (thirty-two instead of thirty-one years).¹⁰⁴

Marcum statim a Iordane expellit eum spiritus sanctus in desertum si in epifania aquam convertit in vinum non in die baptismatis sed in sequente anno convertit. Quamvis enim Galilea a Iordane ubi baptizatus erat Dominus tam longe distat ut non possint uno die baptismum et vinum de aqua simul fieri, tamen non ad Galileam a Iordane sed in herimum ieiunaturus xl diebus Dominus perrexit, teste Marco evangelista.'

¹⁰¹ Vatican City, BaV, MS Palatinus 830, fol. 75^v: 'Sanctus ergo Iohannes post miraculum vini in suo evangelio Christum tria pascha praedicasse praedicavit aperte, id est duobus annis ac dimedio anno. Quia vero ipse annus in quo baptizatus est x annus cycli decennovenalis primus annus est suae praedicationis et post ipsum annum anno xi et xii atque xiii eiusdem cycli usque in passionem suam praedicavit, recte in figura antichristi Iohannes in apocalipsi Dominum iii annis ac dimedio praedicasse perhibet. Itaque in anno xxx quarto nativitatis, hoc est in anno xxxiii suae aetatis, in quarto anno praedicationis suae in anno xiii cycli decennovenalis.'

¹⁰² Vatican City, BaV, MS Palatinus 830, fol. 75^v: 'in quarto anno praedicationis suae in anno xiii cycli decennovenalis, id est in anno xii incarnationis iuxta Dionisium viii kal. apr. luna xv passus est Dominus'.

¹⁰³ Vatican City, BaV, MS Palatinus 830, fol. 75^v: 'Beda sic: "Anno imperii Augusti caesaris quadragessimio secundo [...] olimpiadis centessimae nonagessimae tertiae anno iii, ab urbe vero condita anno septingentissimo quinquagessimio secundo Ihesus Christus filius Dei viam mundi aetatem suo consecravat adventu." Haec autem mirabiliter dicit Beda. Dum ipse secundum ebraicam veritatem huc usque suam cronicam composuit, nunc autem dominicam nativitatem iuxta septuaginta interpretes et olimpiades Graecorum commendat.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3952).

¹⁰⁴ Vatican City, BaV, MS Palatinus 830, fol. 75^v: 'Nisi enim modo Amon annis xii secundum lxx interpretes quem antea duobus annis secundum Ebreos supputavit, et Iosiam xxxii annis quem antea xxx et uno anno secundum Ebreos supputavit numeraret, nequaquam modo xii [corr. xi] annos plus haberet in quinta aetate quam ebraica veritas testatur.'

Dating Christ's life from a chronographic perspective (9–19). In the next four chapters (9–12) Marianus reconstructed the life of Christ within the chronological scheme of regnal years, Olympiads, and cycle years. Despite the stereotypical style of these chapters, in terms of their contents they constitute one of the most important sections of this chronicle. Marianus began his reconstruction at the Birth of Christ in the forty-second regnal year of Augustus (1 VA).¹⁰⁵ Next he dated the Birth of Christ, both according to the chronicle of Eusebius and Bede (19 VA) and according to the Incarnation era of Dionysius Exiguus (23 VA).¹⁰⁶ Finally he dated Christ's Passion according to the gospel verity on 25 March 34 VA (=AD 12).¹⁰⁷ (See Table 26.)

The next five chapters (13–17) together comprise a series of scriptural citations and borrowings from authoritative authors pertaining to the public life of Jesus. At the end of Chapter 17 Marianus concluded this series of borrowings with the remark that he also intended to produce a chronographical reconstruction of the period starting with the fifteenth regnal year of Tiberius and running through to Bede himself (AD 703).¹⁰⁸

In Chapter 18 Marianus reckoned these years initially according to the Olympiads in the Eusebian chronicle. He began by dating the fifteenth regnal year of Tiberius as the fourth year of the 201st Olympiad (201/4).¹⁰⁹ The regnal year of

¹⁰⁵ Vatican City, BaV, MS Palatinus 830, fol. 75^v: 'Cum autem Gaius Iulius caesar idibus martii interfectus et inde regnum Octaviani numeratur, Dominus in fine anni quadragessimi secundi Augusti incipit primum annum nativitatis et annus quadragessimus tertius Augusti incipit in primo anno aetatis, hoc est in secundo anno nativitatis Domini.'

¹⁰⁶ Vatican City, BaV, MS Palatinus 830, fol. 76^r: 'Tiberius annum secundum in xvi, tertium in xvii, quartum in xviii, hoc est in annum incarnationis iuxta cronicam Eusebii vel Bedae presbyteri, quintum in anno xviii, vium in anno xx, viium in anno xx primo, id est in primo anno magni cicli paschalis, octavum annum in xxii anno aetatis Domini, id est in xxiii anno nativitatis Domini qui est annus incarnationis iuxta Dionissium.'

¹⁰⁷ Vatican City, BaV, MS Palatinus 830, fol. 76^r: 'Anno vero sequente, id est xviii Tiberii secundum Iohannem in xxxiii anno suae aetatis, hoc est in anno xxx quarto nativitatis qui est annus iiiiit Olympiadis ducentessimae iiae, iuxta temporis rationem viii kal. apr. luna xv secundum historiam sacri evangelii passus est Dominus.'

¹⁰⁸ Vatican City, BaV, MS Palatinus 830, fol. 77^v: 'Cum autem annum quintodecimum secundum cronicam Eusebii vel Bedae cuius sit cicli decennovenalis non facile scimus, ab eodem anno xv Tiberii usque ad ipsum Bedam iuxta suam cronicam numeremus.'

¹⁰⁹ Vatican City, BaV, MS Palatinus 830, fol. 77^v: 'Annus ergo xvmus Tiberii iuxta cronicam Eusebii est ducentessimae primae Olympiadis annus quartus, post quem usque ad Gaium sunt anni viii.'

Table 26

<i>annus aetatis</i> (<i>annus nativitatis</i>)		<i>Regnal years</i>	<i>Historical event</i>	<i>Olympiads</i>	<i>x / 19</i>
1st (1 VA)	March June September December	Aug. 42		[194/3] 194/4	18/19
18th (19 VA)	March June September December	[Tib. 3] Tib. 4	° Christ ~ Gospels	[199/1] 199/2	17/19
19th (19 VA)	March June September December	[Tib. 7] Tib. 8	° Christ ~ Eusebius-Bede	[200/1] 200/2	2/19
22nd (23 VA)	March June September December	[Tib. 14] Tib. 15	° Christ ~ Dionysius	[201/4] 202/1	9/19
29th (30 VA)	March June September December		° Public life ~ Gospels		10/19
30th (31 VA)	March June September December	Tib. 16		202/2	
31st (31 VA)	March June September December	[Tib. 18] Tib. 19	† Christ ~ Gospels	[202/4] 203/1	13/19
33rd (34 VA)	March June September December				

Tiberius changed in early September, whereas the Olympiad did not change until 24 September. Consequently the beginning of Tiberius's fifteenth regnal year fell just within the fourth year of the 201st Olympiad (201/4). Next Marianus provided a list of fifty-nine Roman rulers, which he provided with a number of different control points. According to Jerome's chronicle 351 years had passed between the fifteenth regnal year of Tiberius up to and including the date of Emperor Valens's death (d. 378).¹¹⁰ Moreover, Bede had clearly indicated that the first year

¹¹⁰ Vatican City, BaV, MS Palatinus 830, fol. 78r: 'Sanctus Hieronimus qui transtulit cronicam Eusebii secundum ipsam sic ait: "A quintodecimo Tiberii anno et praedicatione Domini nostri Ihesu Christi usque in annum xiiiiium Valentis quo interiit, anni sunt cccl unus.'" See also Jerome of Strido, *Praefatio ad Chronicon*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 27 (Paris, 1846), cols 33–40.

of a 532-year Dionysian cycle (AD 532) was both the 248th regnal year of Diocletian and the sixth regnal year of Emperor Justinian I (d. 565).¹¹¹ Finally, Bede had also explicitly stated that he had written his *De temporibus* in 703, more specifically in the fifth regnal year of Emperor Tiberius III (d. 705).¹¹² Marianus correctly concluded that this year coincided with the 172nd year of a 532-year Dionysian cycle (172/532).¹¹³

Ultimately this chronographic reconstruction showed that precisely 505 years had transpired from the fifteenth regnal year of Tiberius to the first year of a 532-year Dionysian cycle (1/532), or a complete 532-year cycle less twenty-seven years (532 - 27 = 505).¹¹⁴

Table 27

1. Tiberius: 23 years	1–8	Tiberius 15 = 201/4 (>Eusebius)
36. Valentinian and Valens: 14 years + 5 months	337–51	Valens 14 = Tiberius 366 (>Jerome)
47. Justinian I: 38 years	501–38	Justinian 6 = Diocletian 248 = 1/532 (>Bede)
59. Tiberius: 7 years	673–79	Tiberius 5 = AD 703 = 172/532 (>Bede)

¹¹¹ Vatican City, BaV, MS Palatinus 830, fol. 78^r: ‘Iustinianus annis quinque usque ad ciclum Dionisii, ex toto autem xxxviii annis. Beda: “Dionisius paschales scripsit circulos incipiens ab anno dominicae incarnationis quingentissimo xxx secundo, qui est annus Diocletiani tiranni ducentissimus xlviii”: Haec Beda.’ See also Beda Venerabilis, *De temporibus liber*, ch. 22, and Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 4518).

¹¹² Vatican City, BaV, MS Palatinus 830, fol. 78^r: ‘Beda in libro de temporibus anno quo fecit eum sic: “Si vis nosse quot sunt anni ab incarnatione Domini iuxta Dionisium, scito quot fuerint ordines indictionum ut pote in praesenti anno quinto Tiberii quadraginta vi. Hos multiplica per xv, fiunt sexcenti nonaginta; adde semper regulares xii, quia quarta indictione secundum Dionissium natus est Dominus et indictionem anni cuius volueris ut pote in praesenti unam, fiunt septingenti iii anni; isti sunt anni nativitatibus Domini in praesente.” Haec Beda.’ See also Beda Venerabilis, *De temporibus liber*, ch. 14.

¹¹³ Vatican City, BaV, MS Palatinus 830, fol. 78^r: ‘Annus itaque vus Tiberii est incarnationis iuxta Dionisium septingentissimus iii, indictione prima, concurrentium vii, initium quadragesimae v kal. mar. luna quinta, pascha vi id. apr. die, luna xviii, decennovenalis cicli primus et magni quoque cicli Dionissii centissimus septuagessimus secundus annus sine ulla dubitatione.’

¹¹⁴ Vatican City, BaV, MS Palatinus 830, fol. 78^r: ‘Ab anno ergo xv Tiberii usque in obitum Valentis sunt anni ccclunus teste sancto Hieronimo iuxta cronicam Eusebii. Annus primus quoque cicli Dionissii ducentissimus xl octavus est Diocletiani teste Beda iuxta cronicam Eusebii vel suam. Inter annum ergo xvum Tiberii et Diocletianum sunt cclviii, usque autem ad ciclum Dionisii quingenti v anni, hoc est ciclus magnus paschalis minus xxvii annis.’

In Chapter 19 Marianus took this argument even further. Based on these data he was able to date the fifteenth regnal year of Tiberius according to the Eusebius/Bede chronicle to the twenty-seventh year of a 532-year Dionysian cycle (27/532 = AD 26).¹¹⁵ Marianus, however, immediately rejected the validity of this reckoning, because the eighteenth regnal year of Tiberius (30/532 = AD 29) did not possess the requisite computistical parameters for the date of Christ's Passion.¹¹⁶

The two most important alternatives were the Greek tradition (+13) and the Latin tradition (-17).¹¹⁷ Marianus preferred the Latin tradition, because not a single authoritative source indicated that fewer than 505 years were to be tallied from the first year of a 532-year Dionysian cycle to the fifteenth regnal year of Tiberius.¹¹⁸ It was at any rate unacceptable for Marianus that the gospel verity should in any way be ignored, and so he insisted that a more accurate reckoning be followed than the one provided by the chronicle of Eusebius and Bede.¹¹⁹

Marianus therefore sought a criterion that would enable one to make a definitive and responsible choice between the Greek and Latin traditions. This criterion consisted of a double calculation of the number of years from the murder of Caesar (44 BC) to the first regnal year of Vespasian (d. 79), in other words using the Olympiad reckoning in the Eusebian chronicle on the one hand and the reckoning of solar years on the other.¹²⁰ At the beginning of this same chapter Marianus had

¹¹⁵ Vatican City, BaV, MS Palatinus 830, fol. 78^r: 'Annus ergo xvus Tiberii est ita teste sancti Hieronimo et Beda ratione praedictarum cronicarum xxvii magni [cicli] paschalis, decennovennalis quoque cicli secundi eiusdem magni cicli viii, incarnationis iuxta Dionisium xxvi.'

¹¹⁶ Vatican City, BaV, MS Palatinus 830, fol. 78^r: 'Quia autem in anno iii post istum pascha Ebreorum, id est xiiii luna primi mensis ad vesperam in qua agnus Dominus feria v post coenam captus est evangelis iiii contestantibus fuit feria vi vespere xvii kal. mai., nostrumque pascha xv kal. mai., nequaquam iste xv Tiberius vel ille passionis hoc est xviii eiusdem Tiberii annus omnino potest fieri.'

¹¹⁷ Vatican City, BaV, MS Palatinus 830, fol. 78^r: 'Si vero viii kal. apr. resurrexit Dominus, isti annos xi plus, si autem vi kal. apr. surrexit sicut celebrat ecclesia, annos xviii minus numeraverunt.' From his point of departure (30/532 = AD 29) Marianus erroneously calculates +11 for the Greek tradition (43/532 = AD 42) and -18 for the Latin tradition (13/532 = AD 12).

¹¹⁸ Vatican City, BaV, MS Palatinus 830, fol. 78^r: 'Cum itaque hac supputatione ab anno xv Tiberii usque ad ciclum Dionissii nulla auctoritate minor summa invenitur, ideo minor non potest fieri quam a viris sanctis fuit praefinita.'

¹¹⁹ Vatican City, BaV, MS Palatinus 830, fol. 78^{r-v}: 'Quia autem isti non dixerunt istam summam maiorem esse non posse, cum non in una auctoritate maior reperitur et historia sancti evangelii hanc non patitur permanere, ratio auctoritatis ac fidei poscit fideliozem summam quam istam.'

¹²⁰ Vatican City, BaV, MS Palatinus 830, fol. 78^r: 'Quoniam vero olimpiadarum supputatio qua isti incarnationis annos numerant, quasi certior ceteris computationibus prout ad observandam

already shown that the reckoning of Olympiads was incorrect, because it did not result in a chronologically acceptable date for the Passion of Christ (30/532 = AD 29). Theoretically, then, there remained just two possibilities: the Olympiadic reckoning produced either a larger or a smaller number than the sum of the solar years. In the first instance Marianus logically enough preferred the Greek tradition (43/532 = AD 42), because in that case it appeared that according to the reckoning of Olympiads the number of years tallied to Tiberius's fifteenth regnal year was too high, namely to AD 29 instead of to AD 42.¹²¹ If, however, the sum of the Olympiads turned out to be smaller than the number of solar years, then the date of Christ's Passion had to agree with the Latin tradition (13/532 = AD 12).¹²² In this latter case it had already been shown that according to the Olympiadic reckoning there were too few years going back to the fifteenth regnal year of Tiberius, namely to AD 29 instead of to AD 12. Thus Marianus first counted the years from Caesar's death (44 BC) to the first regnal year of Vespasian (AD 69) according to the Olympiads in the chronicle of Eusebius and Bede. He notes explicitly that he has counted these years inclusively, in other words that he has treated incomplete regnal years as complete.¹²³ The result of this inclusive reckoning was that Caesar died in the first regnal year of the 184th Olympiad (184/1) and that Vespasian began his reign in the first year of the 212th Olympiad (212/1). This inclusive system was not applied to a solar reckoning, however, and this resulted among other things in Augustus beginning his reign a year earlier than in the first reckoning (184/1 instead of 184/2). Ultimately according to this second calculation Vespasian began his reign two years later, namely in the third year of the 212th Olympiad (212/3).

annorum incorruptam siriem in libris sit scripta probatur, utrumque maiorem vel minorem numerum annorum ab annis solaribus adquirat per spatium eiusdem temporis probenius.'

¹²¹ Vatican City, BaV, MS Palatinus 830, fol. 78^v: 'Si summam maiorem olimpiadarum supputatio eadem quantitate temporis quam annorum solarium numerus inquit, et ab illo anno xv Tiberii quem medium diximus inter sexto et viii kal. apr. ante se ad nos hoc est ad viii kal. apr. supercrescat computatio probata, ratio est quae facit Dominum in viii kal. apr. resurrexisse, solaresque annos plus debito numeratos fuisse.'

¹²² Vatican City, BaV, MS Palatinus 830, fol. 78^v: 'Et si vero reperta fallaci computatione olimpiadarum anni solares summam maiorem annorum inveniunt, et ultra eundem annum xv Tiberii a nobis versus supra ad vium diem kal. apr. producunt numerum, minus sine dubio olimpiadarum anni quam tempus se habet supputantur, et Dominus non in viii sed in vi die kal. apr. resurrexit.'

¹²³ Vatican City, BaV, MS Palatinus 830, fol. 78^v: 'Gaius igitur Iulius caesar iuxta cronicam Eusebii in anno primo olimpiadis centissimae octogessimae tertiae incipiens regnavit annis iiii mensibus vi et occisus est idibus martii in anno primo olimpiadis centesimae octogessimae quatae, qui annus totus sibi deputatur iuxta olimpiades.'

For the period from Caesar's death to the first regnal year of Vespasian Marianus counted a total of 111 years according to the Olympiad reckoning and 113 years according to the solar reckoning.¹²⁴

Table 28

	> <i>Olympiads</i> (<i>Eusebius-Bede</i>)	> <i>solar years</i> (<i>Marianus</i>)
Gaius Iulius Caesar	... – 184/1	... – † 15 March 184/1
Octavianus (56yrs + 6m.)	184/2 – 198/1	March 184/1 – September 198/1
Tiberius (23yrs)	198/2 – 203/4	September 198/1 – September 203/4
Gaius (4yrs + 10m. + 8d.)	204/1 – 204/4	September 203/4 – 1 August 205/1
Claudius (14yrs + 7m.)	205/1 – 208/2	1 August 205/1 – 1 April 208/4
Nero (13yrs + 7m.)	208/3 – 211/4	1 April 208/4 – 1 December 212/3
Vespasianus	212/1	1 December 212/3
	Total = 111 years	Total = 113 years

Marianus discovered more lacunas, however, in the Olympiad reckoning, particularly in the period between Nero's suicide (AD 68) and the first regnal year of Vespasian (AD 69). Contrary to Orosius's *Historia romana*, Eusebius had mentioned the brief reigns of emperors Galba, Otho, and Vitellius but had failed to include them in his calculation of the Olympiads.¹²⁵ Marianus had moreover calculated that Vitellius had died on 3 October in the first regnal year of the 213th Olympiad (213/1), which was thus already the fifth regnal year of Vespasian according to the chronicle of Eusebius and Bede.¹²⁶ Consequently the difference between the Olympiad reckoning and the solar reckoning was a total of four years.

¹²⁴ Vatican City, BaV, MS Palatinus 830, fol. 78^v: 'Augustus ergo secundum has cronicas regnavit annis lvi, Tiberius xxiii, Gaius anni iiii, Claudius anni xiiii, Nero xiiii hoc est annis c et xi. Secundum autem annos solares ut supra regnaverunt cxiii. Anni duo igitur usque huc inventi sunt qui in cronicis et olimpiadibus perierunt.'

¹²⁵ Vatican City, BaV, MS Palatinus 830, fols 78^v–79^r: 'Galba vero et Otho ac Vitellius qui in Orosio historiae romanae numerantur, et in cronica quoque Eusebii cum tempore regni sui nominantur, etsi in supputatione non inseruntur, hic computandi sunt.' See also Paulus Orosius, *Historiarum libri septem*, ed. by Jacques-Paul Migne, Patrologia Latina, 31 (Paris, 1846), cols 663–1174, 7:8.

¹²⁶ Vatican City, BaV, MS Palatinus 830, fol. 79^r: 'Ipse ergo obiit in anno primo olimpiadis ducentissimae [x]iiii, id est in anno v Vespasiani iuxta cronicas.' See also Flavius Josephus, *Bellum Iudaicum*, ed. by Gaalyah Cornfeld, Benjamin Mazar, and Paul L. Maier, Josephus, *The Jewish War: Newly Translated with Extensive Commentary and Archaeological Commentary and Archaeological Background Illustrations* (Grand Rapids, MI, 1982), 4:11.

Oddly enough Marianus did not take these lacunas into account in his further argument. According to the Olympiadic reckoning the difference between the fifteenth regnal year of Tiberius and the first regnal year of Vespasian was forty years, that is from the fourth year of the 201st Olympiad (201/4) to the first year of the 212th Olympiad (212/1).¹²⁷ In solar years, however, the difference had increased to forty-three years, namely from the third year of the 201st Olympiad (201/3) to the third year of the 212th Olympiad (212/3). The fact that the Olympiadic reckoning was here three years less than the more accurate solar reckoning constituted proof for Marianus of the superiority of the Latin tradition (AD 12) over the Greek tradition (AD 42).¹²⁸

Because of this difference of three years, what had been the fifteenth regnal year of Tiberius in the solar reckoning became Tiberius's twelfth regnal year according to the chronicle of Eusebius and Bede.¹²⁹ Consequently this fifteenth regnal year of Tiberius according to the solar reckoning was associated with AD 23 (instead of with AD 26) and 508 years (instead of 505 years) were counted before the beginning of a 532-year Dionysian cycle.¹³⁰ By this means the deviations of the earlier chronicles were clearly revealed and at the same time it was proven that Christ was resurrected on 27 March (luna xvii), according to the Latin tradition.

The superiority of the Latin tradition to the Greek tradition (20–26). And yet in Chapter 20 Marianus turned once again to the Greek tradition.¹³¹ As

¹²⁷ Vatican City, BaV, MS Palatinus 830, fol. 79^r: 'Inter annum itaque xv Tiberii et Vespasiani iuxta cronicas sunt anni xl quae sunt olimpiades x. Annus enim xv Tiberii est quartus annus olimpiadis ccae primae; Vespasiani vero primus olimpiadis ducentissimae xiiiae etiam primus annus.'

¹²⁸ Vatican City, BaV, MS Palatinus 830, fol. 79^r: 'Cum autem inter annum quintum decimum Tiberii et primum Vespasiani anni sunt ut antea dictum xliii, quis dubitat tales annos solares in cronicis interisse vel Dominum in vi kal. apr. resurrexisse?'

¹²⁹ Vatican City, BaV, MS Palatinus 830, fol. 79^r: 'Modo enim factus est annus xvus Tiberii supputando a nobis versus supra, qui erat antea annus xii eiusdem Tiberii.'

¹³⁰ Vatican City, BaV, MS Palatinus 830, fol. 79^r: 'Quoniam ergo olimpiarum et cronicarum reperitur fallacitas, atque resurrectio dominica ab viii die kal. apr. ante se ratione duce ad vi diem kal. apr. pergit, ita ut anni x et viii sint inter annum xvum Tiberii et resurrectionem in viii kal. apr., x autem tantum anni inter eundem xv Tiberii et resurrectionem in vi kal. apr. et annus xv Tiberii qui fuit antea secundum computationem cronicarum annus xxvi incarnationis secundum Dionysium. Nunc effectus est annus xxiii eiusdem incarnationis iuxta supputationem solarium annorum, ac sunt modo anni quingenti viii inter annum xv Tiberii et ciclum Dionissii satis apparet quod cronicae errant et Dominus in vi kal. apr. surrexit.'

¹³¹ Vatican City, BaV, MS Palatinus 830, fol. 79^r: 'Modo videamus cur resurrectio in viii kal. apr. putanda sit, sive quid offendit si fuerit.'

demonstrated in the previous chapter, the eighteenth regnal year of Tiberius according to the chronicle of Eusebius and Bede corresponded to the thirtieth year of a 532-year cycle (AD 29). Consequently the twenty-third and last regnal year of Tiberius ended in September AD 34 and Gaius ruled from that point on.¹³² Gaius died in his fifth regnal year (AD 39), after which Claudius began his reign on or around 1 August of the same year.¹³³ Consequently, according to the Greek tradition the Passion of Christ fell in the third regnal year of Claudius (23 March AD 42).¹³⁴ Subsequently Marianus cited an important passage from the beginning of Bede's chronicle. There Bede had expressed in very careful terms his preference for the Greek tradition, in light of the fact that no more accurate means of calculation was available (*si non verior sententia vincit*).¹³⁵

In Chapter 21, however, Marianus made mincemeat of the Greek tradition and, by means of a number of different arguments, refuted Bede's careful preference. If Christ had indeed died in AD 42, then the number of years from the fifth *aetas*

¹³² Vatican City, BaV, MS Palatinus 830, fol. 79r: 'Annus semper Tiberii inter duos solares annos habetur, quia quasi mense septembrem inceptit. Quoniam ergo iuxta evangelium Iohannis in anno xviii Tiberii passus est Dominus, hoc est in anno xxx incarnationis iuxta Dionisium, secundum cronicam Eusebii vel Bedae, in eodem anno Tiberius annum xix inceptit et in anno xxxiiii incarnationis qui et passionis secundum Dionisium annum xx tertium finivit, atque Gaius primum annum inchoavit.'

¹³³ Vatican City, BaV, MS Palatinus 830, fol. 79r: 'Quique Gaius in anno xl magni cicli post iiiior annos, mensibus x et diebus viii sui imperii periit, primumque annum Claudius inchoavit quasi kal. aug.'

¹³⁴ Vatican City, BaV, MS Palatinus 830, fol. 79r: 'In anno iii itaque Claudii inceptit quintus cicli decennovennalis annus concurrentium septem, dominicus dies palmarum xv kal. apr. luna xa, coena Domini feria va xi die kal. apr. luna xiiii, dominica passio feria sexta decimo die kal. apr. quo Adam creatus est, resurrectio dominica viii die kal. apr. luna xvii. Haec continentur in anno iii Claudii, in anno xvi post illum annum quem diximus secundum Eusebium vel Bedam nomine anni xv Tiberii in anno xlii incarnationis secundum Dionisium.'

¹³⁵ Vatican City, BaV, MS Palatinus 830, fol. 79r: 'Sanctus Beda de hoc anno ita dicit: "Sexta die formavit Deus Adam, de cuius latere dormientis matrem omnium viventium produxit Evam, quae nunc quantum mihi videtur esse credibile decimus kal. apr. dies appellatur. Unde merito creditur si non verior sententia vincit quod beatus Theophilus cum ceteris non solum Palaestinae sed per multas aliarum regionum episcopis disputans de pascha scripsit eodem x kal. apr. die Dominum crucifixisse. Decebat enim una eademque die non solum ebdomadis sed et mensis secundum Adam pro generis humani salute vivifica morte sopitum de producto e latere suo sacramentis caelestibus sponsam sibi aedificare aeccliesiam, qua videlicet die primum Adam patrem videlicet humani generis ipse creavit eique de latere costam tollens aedificavit mulierem cum adiutorio propagaret genus humanum." Haec Beda.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66.

would have to be increased by eleven years (600 instead of 589), and Christ was born not in the forty-second but rather in the fifty-third regnal year of Augustus.¹³⁶ The beginning of His public life would no longer fall in the fifteenth regnal year of Tiberius, but rather in the fourth regnal year of Gaius. Finally, Christ would have died in the third regnal year of Claudius and not in the eighteenth regnal year of Tiberius.¹³⁷ Marianus likewise calculated that according to the Greek tradition the Birth of Christ would be moved up to the 763rd year since the foundation of Rome (763 AUC), whereby the one thousandth year since that foundation would no longer fall within the reign of Philippus (d. 249). This latter directly contradicted nearly all the important chroniclers (Orosius, Cassiodorus, Eusebius, Isidore), as it did Bede himself.¹³⁸ For Marianus, then, the simplest conclusion was that the Greek tradition contradicted all of the authoritative historiographical sources as well as the gospel verity.¹³⁹ (See Table 29.)

In Chapter 22, Marianus borrowed from Bede himself in order to demonstrate the fallibility of the Greek tradition.¹⁴⁰ In other words, he wished to refute Bede's

¹³⁶ Vatican City, BaV, MS Palatinus 830, fol. 79^v: 'Si vero resurrectio in viii kal. apr. fuerit possita, ad annos quingentos octoaginta ix aetatis vae qua concorditer editione utraque praefinita est necesse erit annos xi addere, tantosque de annis incarnationis intermittere ut nativitas dominica qui fuit in anno xl secundo Augusti teste evangelista Luca fiat in anno liii eiusdem Augusti.'

¹³⁷ Vatican City, BaV, MS Palatinus 830, fol. 79^v: 'et ut babtismatis annus xv Tiberii veniat in anno iiii Gaii, atque annus xviii Tiberii et passio Christi sit in anno iii Claudii'.

¹³⁸ Vatican City, BaV, MS Palatinus 830, fol. 79^v: 'Tunc nativitas Domini erit in anno septingentesimo lx tertio conditionis urbis in anno sexcentesimo aetatis quintae et conditionis urbis annus millesimus in anno xii ante Philippum implebitur, contra Orosium Casiodorum Eusebium Isidorum omnesque ecclesiasticos historiographos ipsumque Bedam ita dicentem: "Quinta mundi aetas a transmigratione Babilonis usque ad adventum Christi in carnem iuxta utramque editionem generationes xiiii habet et annos quingentos lxxxix." Haec Beda.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66.

¹³⁹ Vatican City, BaV, MS Palatinus 830, fol. 79^v: 'Si in viii kal. apr. resurrectio Christi sit, nec hoc aliaque multa omnium historicorum suaue cronica omnino stare potuerit, et contra historiam sancti evangelii atque aeclesiasticam auctoritatem congruamque totius circumscriptionis fiat si fuerit. Si enim natum Dominum in anno altero dixerimus nisi in anno xlii Augusti sive baptismum nisi in anno xv Tiberii secundum Lucam, ac deinde nisi in xviii eiusdem Tiberii qui est annus iiii praedicationis Christi iuxta apocalipsin passionem possuerimus veritati evangelicae contradicimus, multo magis si sub Gaio imperatore babtismum Domini in anno xii post praedictum annum xvum Tiberii et in anno iii Claudii passionem existentibus etiam multis aliis non convenientibus causis confirmemus.'

¹⁴⁰ Vatican City, BaV, MS Palatinus 830, fol. 79^v: 'Quoniam igitur resurrectio dominica in viii kal. apr. iuxta evangelium non conveniebat, ideo quod Adam emendatione ipse Beda ita indicavit.'

Table 29

	<i>Historiographical data</i>	<i>Greek tradition</i>
Birth of Christ	589th year of fifth <i>aetas</i> Augustus 42 752 AUC	600th year of fifth <i>aetas</i> Augustus 53 763 AUC
Beginning of His public life	Tiberius 15	Gaius 4
Passion of Christ	Tiberius 18	Claudius 3

careful preference for the Greek tradition in his chronicle using passages from another of Bede's writings. In actual fact we are once again dealing with a text by someone other than Bede, namely an anonymous Carolingian tract on the date of the Creation of the world (*Prima dies seculi*).¹⁴¹ Based on the cycle of the days of the week, the anonymous author here calculates the number of years from the Creation of the world up to and including the Passion of Christ.¹⁴² He initially posited that the world was created on Sunday 18 March and decided to use that as his point of departure for calculating the beginning of the seventeenth regnal year of Tiberius (AM 3983), based on the cycle of days of the week.¹⁴³ Every year consisted thus of 364 days (52 x 7). The date of the Creation of the world (AM 1) began on Sunday 18 March and ended on Saturday 16 March. Consequently the second year (AM 2) extended from Sunday 17 March up to and including Saturday 15 March, etc.

When the 365 days had reached their end, the 366th year of this reckoning logically began on Sunday 18 March (AM 1 + 365 = AM 366).¹⁴⁴ This cycle began

¹⁴¹ Marianus knew this text from Paris, BnF, MS lat. 4860, fol. 142^{r-v}.

¹⁴² Vatican City, BaV, MS Palatinus 830, fol. 80^r: 'Prima dies saeculi creditur fuisse dominica septima sabbatum sicut scriptura divina testatur. His septem diebus in sese redeuntibus totus transactorum temporum cursus et ordo peractus est, reliquusque peragetur.'

¹⁴³ Vatican City, BaV, MS Palatinus 830, fol. 80^r: 'Si quis secundum hanc rationem ab initio mundi inchoans primam feriam, id est diem dominicam in capite posuerit omnesque annos quinquaginta duarum ebdomadaram, id est trecentorum sextaginta quatuor dierum fecerit, sicque ad tria milia nongentos octoaginta tres annos, id est a mundi exordio usque ad septimum decimum Tiberii caesaris annum computando perduxerit, inveniet Dominum nostrum Ihesum Christum octavo die kal. apr. luna xv feria sexta secundum historiam evangelii crucifixum.'

¹⁴⁴ Vatican City, BaV, MS Palatinus 830, fol. 80^r: 'Ponatur ad initium primi anni qui fuit in primordi mundi quintus decimus dies kal. apr. pro feria prima, ipseque annus trecentorum sexaginta quatuor dierum, id est quinquaginta duarum ebdomadaram computetur, erit ultima dies eius septima decima dies kal. apr., et prima sequentis anni sextadecima dies kal. apr. Qui itam cum fuerit evolutus in idibus martiis terminabitur, habebitque tertius initium in septimo decimo die kal. apr. Qui cum in pridie id. finem sortitus fuerit, dabit quarto principium in id. mar., finemque in iii id.

for the eleventh time in AM 3651 and from then on another 333 years had to be counted up to and including the seventeenth regnal year of Tiberius ($3650 + 333 = 3983$).¹⁴⁵ A quick calculation then revealed that AM 3983 began on Sunday 20 April.¹⁴⁶ At the same time the anonymous author calculated that two years had to be added due to the number of accumulated leap-days and he consequently concluded that AM 3985 began on Sunday 18 April and ended on Saturday 16 April.¹⁴⁷ In that same year 25 March fell indeed on a Friday and our anonymous author took this as proof of the superiority of the Latin tradition.¹⁴⁸ If 16 April fell on a Saturday, then 25 March had indeed fallen on a Friday in the previous year. (See Table 30.)

The anonymous Carolingian author did, however, make a computistical error in calculation. He counted only 364 days per year, resulting in a difference with the solar reckoning of an average of 1.25 days per year. According to his calculation this difference was only 0.25 days, however, which in his reckoning had by AM 3983 amounted to almost 1000 days, or 2.7 years ($3982 \times 0.25 = 995.5 : 365.25 = 2.7\dots$).

mar. Sic fit ut primus saeculi annus in xv kal. apr. sumat exordium, secundus in xvi kal. apr., tertius in xvi kal. apr., quartus in id. mar., quintus in pridie id., sextus in iii id. mar. Et hoc ordine sursum versus in februarium et ianuarium, decembrem et octobrem ceterosque menses usque ad martium singulos dies singulis annorum principiis adsignans post trecentos sexaginta quinque annos in quinto decimo kal. apr. tricentessimi sexagesimi sexti anni primum diem prima feria absque ulla ambiguitate reperies.’

¹⁴⁵ Vatican City, BaV, MS Palatinus 830, fol. 80r: ‘Cum hoc ita esse constiterit considerato diligenter annorum numero secundum hebraicam veritatem ab adam usque in septimum decimum Tiberii caesaris annum, partitoque in trecentos sexaginta quinque dies, invenies ni fallor annos tria milia nongentos octoaginta tres, et in his decies trecentos sexaginta quinque, insuper et tricentos triginta tres.’

¹⁴⁶ Vatican City, BaV, MS Palatinus 830, fol. 80r: ‘Undecies ergo evenit ut in quinto decimo kal. apr. anni contingat initium et hoc in prima feria. Supputatis de hinc a quinto decimo kal. apr. sursum versus tricentis triginta tribus diebus, nactoque ipsius tricentessimi trigessimii tertii diei loco, videbis hoc in duodecimo die kal. mai. incidisse, ipsumque esse $\text{m}^{\text{m}}\text{m}$ nongentesimi octoagesimi tertii anni primum diem primam feriam.’

¹⁴⁷ Vatican City, BaV, MS Palatinus 830, fol. 80r: ‘Quod si his duos annos qui de bisextili cremento per totam praedictorum annorum seriem colliguntur adieceris, erunt anni ab initio mundi usque in septimum decimum Tiberii caesaris annum tria milia nongenti octoaginta quinque initiumque $\text{m}^{\text{m}}\text{m}$ nongentesimi octoagesimi tertii anni quarto decimo kal. mai. et finis sexto decimo kal. eiusdem mensis.’

¹⁴⁸ Vatican City, BaV, MS Palatinus 830, fol. 80r: ‘Eodemque anno in octavo die kal. apr. feria sexta qua Christum crucifixum sancti evangelii sacra testatur historia.’

Table 30

<i>AM</i>	<i>x / 365</i>
1 Sun. 18/3 – Sat. 16/3	beginning 1st cycle
2 Sun. 17/3 – Sat. 15/3	
3 Sun. 16/3 – Sat. 14/3	
366 Sun. 18/3 – Sat. 16/3	beginning 2nd cycle
3651 Sun. 18/3 – Sat. 16/3	beginning 11th cycle
3983 Sun. 20/4 – Sat. 18/4	3983 = 10 x 365 + 333
3984 Sun. 19/4 – Sat. 17/4	
3985 Sun. 18/4 – Sat. 16/4	Fri. 25/3 = † Christ

In reality, however, the difference was five times greater, namely 4977.5 days or 13.6 years ($3982 \times 1.25 = 4977.5 : 365.25 = 13.6\dots$).

In Chapter 23 Marianus finally explained why he associated the chronicle of Eusebius and Bede with the Greek tradition. His first argument was that Eusebius had not counted the brief reigns of Galba, Otho, Vitellius, Florianus, and Quintilianus in his Olympiadic reckoning.¹⁴⁹ Moreover, according to this chronicle the eighteenth regnal year of Tiberius (AD 30) came closer to the Greek tradition (+12) than to the Latin tradition, even without these ‘forgotten’ reigns.¹⁵⁰ According to Marianus, however, only the Latin tradition agreed with the gospel verity. In support of this view he referred not only to the aforementioned passage from

¹⁴⁹ Vatican City, BaV, MS Palatinus 830, fol. 79^v: ‘Quoniam autem minuta aliqua sunt intermissa atque intervalla vacationis regni vel qui sine electione populi vel militum aliquo spatio mensium aut dierum regnum usurpaverunt, sicut Galba et Otho et Vitellius, Florianus quoque et Quintillius regnaverunt, ipsos Eusebius et Beda non numeraverunt, ideo hoc detrimento efficiente nobis supputantibus supra versus a praesenti tempore usque in passionem dominicam iuxta cronicas eorum, maximeque iuxta cronicam Eusebii quam putatur integritatem annorum habere vel propter honorem Hieronimi qui transtulit eam, vel quia in ipsa sola secundum olimpiades anni sunt numerati Dominum in viii kal. apr. potius videtur resurrexisse quam in vi kal. apr.’

¹⁵⁰ Vatican City, BaV, MS Palatinus 830, fol. 79^v: ‘Postquam enim numerus usque in annum xviii Tiberii, hoc est in annum xxxum incarnationis iuxta Dionisium medium inter viii et vi diem kal. apr. pervenirit, necesse erit tunc ad praedictum numerum annos xviii adieci ut ante superius resurrectionem in vi kal. apr. in anno xii incarnationis secundum Dionisium de eodem vero numero xii annos minuere ut ad nos iterum revertendo retrorsum in anno incarnationis secundum Dionisium quadragesimo secundo viii kal. resurrectionem posis invenire secundum Bedam. Quoniam ergo resurrectio in viii kal. apr. se proprius praestat annis vi quam in vi kal. apr. falsa supputatione olimpiadarum cum minutorum detrimento efficiente, ideo promitius Dominum in eo putatur resurrexisse quam in sexto kal. apr.’ Contrary to Chapters 19 and 20 in the same book, Marianus here fixes the eighteenth regnal year of Tiberius not at AD 29, but rather at AD 30.

‘Bede’, but also to other authoritative authors such as Jerome, Augustine, and Cassiodorus.¹⁵¹

Marianus cites Jerome and Augustine in the chapters that follow. In the brief Chapter 24, he refers to the martyrology attributed to Jerome.¹⁵² In Chapter 25 we find a more extensive borrowing from Augustine.¹⁵³ Marianus repeats in this context the claim that Christ had both been conceived and died on the same calendar day (25 March).¹⁵⁴

This preference for the Latin tradition (AD 12) implied that there were years missing in the chronicle of Eusebius and Bede. For this reason Marianus cites a passage from Jerome’s prologue in Chapter 26.¹⁵⁵ In his translation of Eusebius’s

¹⁵¹ Vatican City, BaV, MS Palatinus 830, fol. 79^v: ‘Sed iuxta historiam evangelii ut Beda dixit sanctus Hieronimus et sanctus Augustinus atque Casiodorus omnesque historici cum aeclesia in vi kal. apr. posuerunt resurrectionem.’

¹⁵² Vatican City, BaV, MS Palatinus 830, fol. 79^v: ‘Beatus enim Hieronimus in martirologio testatur dicens: “Octavo kal. apr. hierosolima Dominus crucifixus est” et “Sexto kal. apr. hierosolima resurrectio Domini nostri celebrata est.” See also pseudo-Jerome of Strido, *Martyrologium Hieronymianum*, ed. by Jacques-Paul Migne, Patrologia Latina, 30 (Paris, 1846), cols 437–84 (viii kal. apr.). On this martyrology, see Borst, *Die karolingische Kalenderreform*, p. 202.

¹⁵³ Vatican City, BaV, MS Palatinus 830, fol. 81^r: ‘Nec in merito in edificatione dominici corporis cum templum a iudeis destructum Dominus triduo resuscitaturum se esse dicebat, numrus ipse senarius pro anno positus intelligitur. [...] Contra rationem nemo sobrius, contra scripturas nemo Christianus, contra aeclesiam nemo pacificus senserit.’ Haec Augustinus.’ See also Augustine of Hippo, *De trinitate*, 4:5–6.

¹⁵⁴ Vatican City, BaV, MS Palatinus 830, fol. 81^r: ‘Qui vero colligitur ex hac conclusione sancti Augustini nisi hoc, quia qui conceptionem et nativitatem sive passionem dominicam aliter senserit quam maioribus traditum suscipiens aeclesiae custodit auctoritas, hoc est conceptionem et passionem in octavo kal. apr. et nativitatem in octavo kal. ian. cum ceteris observationibus ad easdem pertinentibus tractatisque in hoc ab ipso sanctam quae observat aeclesia, nec sobrius nec christianus nec in aeclesia pacificus sed econtra sentit. Nonne ergo hic sanctus Augustinus satis in sexto kal. apr. resurrectionem dominicam confirmavit? Aeclesia quoque tota spiritu sancto illuminata quam ad dexteram vel ad sinistram ambulare in tenebris non credimus, resurrectionem dominicam annuo non in octavo sed in sexto kal. apr. praedicat et celebrat, quod numquam mutabitur.’ See also Marianus Scottus, *Chronicon*, 2:2.

¹⁵⁵ Vatican City, BaV, MS Palatinus 830, fol. 81^r: ‘Quod ergo ipsum atque idem aeclesiam cum evangelio Hieronimo atque Augustino omnibusque historicis testificatur, quocumque modo corrupti sunt anni incarnationis necesse erit in sempiternum firmiter stare. De corruptione autem temporis sanctus Hieronimus in prologo cronicae Eusebii sic: “Sciendum est me et interpretes et scriptoris ex parte officio esse qui et graeca fidelissime expressi, et nonnulla quae nisi videbantur non expressa adieci in romana maxime historia, quam Eusebius huius conditor libri non tam ignorasse ut eruditus, sed graece scribens parum suis necessariam perstinxisse nisi videtur. Itaque anno usque

chronicle, Jerome had partially filled in the lacunas in Roman history.¹⁵⁶ With his explicit preference for the Latin tradition in the *Martyrologium Hieronymianum*, this same influential author had even implicitly suggested he intended to correct all the failings of this chronicle.¹⁵⁷ Only then would Eusebius, too, be brought in line with the Latin tradition and consequently with the gospel verity, as well.¹⁵⁸ Marianus felt that the Gospels had to be systematically combined in order to arrive at a chronologically correct picture of Jesus's life on earth.¹⁵⁹

About the public life of Christ and on the life of the apostles (27–83). The next forty-three chapters (27–69) of this second book offer little or no new chronological and chronological information. It is a collation of all source witnesses to the public life of Jesus, for example, His baptism in the Jordan, the temptation in the desert, the calling of the apostles, the driving of the money changers out of the temple, His miracles of healing, the multiplication of the loaves and fish, and the resurrection of Lazarus (27–56). The method Marianus follows consists of gathering all the historical sources and then conflating them. As he had done in the second chapter in the first book, Marianus next looks closely at the last days of Jesus's stay on earth (57–64). For Christ's Passion and Resurrection, he cites primarily Augustine's *De consensu evangelistarum* (65–69). Finally, in the final fourteen chapters (70–83) Marianus scrutinizes the lives of several of the apostles after Christ's Passion.

ad troiae captionem pura graeca translatio est, inde usque ad annum vigessimum constantini nunc additi nunc iuxta plurima, ab anno autem vigesimo constantini usque ad consulatum augustorum Valentis sexies et Valentiania iterum totum meum est." Haec Hieronimus.' See also Jerome of Strido, *Praefatio ad Chronicon*.

¹⁵⁶ Vatican City, BaV, MS Palatinus 830, fol. 81': 'Quoniam igitur romanam historiam annos incarnationis in se continentem minus debito tractavit Eusebius, ideo Hieronimus sicut ipse dixit quaedam ab Eusebio praetermissa emendando in cronica eiusdem Eusebii adiecit sed non omnia.'

¹⁵⁷ Vatican City, BaV, MS Palatinus 830, fol. 81': 'Minuere ergo vel abiecere emendata a Hieronimo atque correctae quis nam poterit? Quamvis quaedam quae ipse non addit adicere docet tacite quae in *Historia romana* habentur, quia consentientiae sibi sancto Augustino et Cassiodoro quod docuit in martyrologio, haec est Dominum in sexto kal. apr. resurrexisse, sine hac adiectione certum est aliter omnino non posse.'

¹⁵⁸ Vatican City, BaV, MS Palatinus 830, fol. 81': 'Postquam autem de *Historia romana* ad Eusebii cronicam minuta cuncta collecta erunt, in unum detrimentum non erit ullum atque resurrectio dominica in sexto kal. apr. habebitur iuxta historiam sancti evangelii.'

¹⁵⁹ Vatican City, BaV, MS Palatinus 830, fol. 81': 'Evangelistae enim singuli solent multa dimittere quae a ceteris narrantur, sed non sine quatuor evangelistarum conscriptione plenarium est evangelium.'

Conclusion for Book II: A correction of twenty-two years for the Christian period (AD 1 = 23 VA). The second book of Marianus's chronicle dovetails perfectly with the first book. He first concentrates on the conception and incarnation of both John the Baptist and Christ Himself. Next Marianus makes an explicit and consistent distinction between the reckoning of the years of Christ's life (*annus aetatis*), on the one hand, and the inclusive reckoning of years from His Incarnation (*annus nativitatis*), on the other. In this way he was able to reconcile the disparate witnesses to Christ's life. He further employed his own critical insights to fill in the remaining lacunas. Thus he dated the wedding at Cana (John 2. 1–12) one year later than Christ's baptism in the Jordan (Mark 1. 12–13), due to the great distance between the two.

In addition to employing the two existing chronological traditions regarding the date of Christ's Passion, Marianus also used a third, this time chronographical tradition, namely that found in the chronicle of Eusebius and Bede (30/532 = AD 29). Marianus rejected this tradition, however, because it did not produce acceptable chronological parameters for Christ's Passion. It was also situated between the Latin and Greek traditions and for this reason Marianus decided to allow his ultimate choice between them to be determined by the faulty third tradition. The Olympiadic reckoning it followed ultimately proved to contain fewer years than the more accurate solar reckoning, and Marianus concluded from this that the real date of Christ's Passion was reflected in the Latin (AD 12), not the Greek tradition (AD 42).

There were, however, further arguments that spoke in favour of the Latin tradition. It was, for example, easier to add 'forgotten' years than it was to select years for elimination. In the former case, Marianus did not have to go against an already existing and often authoritative source. Moreover, he filled every lacuna in one gospel with data from another. In this way he was able to accumulate the largest number of years for the Christian period, so that the Latin tradition (AD 12) was logically given preference to the Greek tradition (AD 42). Finally, the Latin tradition was supported by the *auctoritas* of none other than Augustine, Jerome, and even 'Bede'. As had been the case in his first book, this was not the real Bede, but an anonymous Carolingian author.

Based on chronological and chronographical arguments, as well as *auctoritas*, Marianus chose quite deliberately and consistently for the Latin tradition, which stated that Christ had died on 25 March AD 12 (luna xv). Consequently he corrected the Dionysian reckoning by twenty-two years (AD 1 = 23 VA). Due to the difference of four years between Eusebius's Olympiadic reckoning and the solar

reckoning, Marianus decided to fix the date of the Birth of Christ according to the chronicle of Eusebius and Bede at 19 VA (4 BC).

Liber tertius: Chronica clara

A renewed preference for the Latin tradition. Book III is in essence the direct sequel to Book I, in which Marianus had dealt with the first five *aetates*. In the sixth *aetas* Marianus provided each year with their chronographical and chronological data. He reported not only the most important events, but also the accompanying concurrent, whether it was a leap year or not, the year according to the gospel verity (VA), the regnal years of the various emperors, the consular years, and ultimately the year according to Dionysius's Incarnation era, as well (AD).

In addition, Marianus systematically marked the beginning of each year of a nineteen-year lunar cycle as well as of a twenty-eight-year solar cycle. By this means we know, for example, that Christ was born in 22 BC (512/532) according to the gospel verity, namely in the penultimate year of a nineteen-year lunar cycle (18/19) and in the tenth year of a twenty-eight-year solar cycle (10/28). As he had done in Chapter 6 of Book II, Marianus maintained moreover that Christ was born in a year with indiction 12.¹⁶⁰ The most important years in the early period of this sixth *aetas* agree for the most part with Marianus's chronological theories in Book II (chs 9–12). (See Table 31.)

What is striking here is that the similarities with Book II are not absolute. There, for example, the date of the Passion of Christ according to the Greek tradition (AD 42) was fixed in the third regnal year of Claudius.¹⁶¹ This discrepancy may be logically explained by the fact that this time Marianus linked the date of Christ's Passion to the Latin tradition (AD 12), and no longer to the chronicle of Eusebius and Bede (AD 29). A second striking fact is the dual notation of Bede. The first time he is mentioned together with Eusebius, in as much as Bede's chronicle indeed agrees with that of Eusebius for the fifth and sixth *aetas*.¹⁶² On the other hand, at the beginning of that same chronicle we also find Bede's carefully expressed preference for the Greek tradition of pseudo-Theophilus.¹⁶³

In the end we encounter two additional new arguments in Book III for preferring the Latin tradition to the Greek. We find the first of these in the date of

¹⁶⁰ Vatican City, BaV, MS Palatinus 830, fol. 101^r: 'Incipit liber tertius indictione xii.'

¹⁶¹ See also Marianus Scottus, *Chronicon*, 2:21.

¹⁶² See also Marianus Scottus, *Chronicon*, 2:8 and 19.

¹⁶³ See also Marianus Scottus, *Chronicon*, 1:7 and 2:20.

Table 31

<i>VA</i>	<i>Regnal years</i>		<i>AD</i>	<i>x / 532</i>
1 VA	Augustus 42	° Christ ~ Gospels ¹⁶⁴	[22 BC]	512/532
19 VA	Tiberius 3	° Christ ~ Eusebius and Bede ¹⁶⁵	[4 BC]	530/532
23 VA	Tiberius 7	° Christ ~ Dionysius ¹⁶⁶	AD 1	2/532
31 VA	Tiberius 15	° Christ ~ Theophilus and Bede ¹⁶⁷	AD 9	10/532
34 VA	Tiberius 18	† Christ ~ Gospels ¹⁶⁸	AD 12	13/532
51 VA	Claudius 7	† Christ ~ Eusebius and Bede ¹⁶⁹	AD 29	30/532
56 VA	Claudius 12	† Christ ~ Dionysius ¹⁷⁰	AD 34	35/532
64 VA	Nero 6	† Christ ~ ps.-Theophilus and Bede ¹⁷¹	AD 42	43/532

Christ's Passion according to the Greek tradition (AD 42), whereby Marianus refers to the stoning of Jacob taking place precisely thirty years after the Passion of Christ, and more specifically on Easter Sunday, 25 March.¹⁷² Presumably Marianus

¹⁶⁴ Vatican City, MS Palatinus 830, fol. 101^v: 'Christus concipitur feria vi. octavo kal. apr. Johannes baptista nascitur octavo kal. iul. Dominus noster Jesus Christus, filius Dei, his consulibus Cassiodoro teste in Betelem Iudae octavo die kal. ian. dominica nocte nascitur. Octavo etiam die dominico circumciditur. Tertio decimo die stella duce a magis adoratur. Quadragesimo die a Simeone et Anna agnoscitur. Deinde praecepto dominico in Egiptum propter metum Herodis deducitur.'

¹⁶⁵ Vatican City, MS Palatinus 830, fol. 101^v: 'Incarnatio incipit iuxta cronicam Eusebii vel Bedae, dum numerantur anni a nobis versus supra usque ad annum quadragesimum secundum Octaviani caesaris.'

¹⁶⁶ Vatican City, MS Palatinus 830, fol. 101^v: 'Incarnatio secundum Dionisium incipit indictione quarta.'

¹⁶⁷ Vatican City, MS Palatinus 830, fol. 102^r: 'Incarnatio Domini sicut Beda perhibet.'

¹⁶⁸ Vatican City, MS Palatinus 830, fol. 102^r: 'Ihesus Christus Filius Dei iuxta prophetias quae de eo fuerant praelocutae passus est viii die kal. apr., luna xva iuxta iiiior evangelia in anno xviii imperii Tiberii caesaris secundum evangelium sancti Iohanni, atque die tertio, id est vi die kal. apr. luna xviia secundum historiam sancti evangelii a mortuis resurrexit.' See also Eusebius and Jerome, *Chronicon*, (Olymp. 202/3).

¹⁶⁹ Vatican City, MS Palatinus 830, fol. 105^r: 'Annus passionis secundum cronicam Eusebii et Bedae.'

¹⁷⁰ Vatican City, MS Palatinus 830, fol. 105^r: 'Resurrectio Christi quinto kal. apr. luna xxi secundum Dionisium.'

¹⁷¹ Vatican City, MS Palatinus 830, fol. 106^r: 'Resurrectionem enim Christi in hoc anno viii kal. apr. sanctus Beda sic putat propter supputationem iniquam cronicae Eusebii et post eam sum cronicam composuit ab incarnatione Domini sicut ipse dicit.'

¹⁷² Vatican City, BaV, MS Palatinus 830, fol. 106^r: 'Iacobus filius Alphei frater Domini cum xxx annis post passionem Hierosolimorum rexit aeclesiam octavo kal. apr. sancto die paschae a

derived the particular detail of Easter Sunday from the *Martyrologium* of Notker Balbulus (d. 912).¹⁷³ Because the stoning of Jacob took place on Easter Sunday, 25 March, it followed logically that only the year AD 42 could be considered. This dovetailed perfectly with the fact that Jacob had died precisely thirty years after Christ's Passion (AD 12).¹⁷⁴

We find the second argument hardly three years further on, namely in the year of the evangelist Mark's death (AD 45). Marianus had read in Notker Balbulus's *Martyrologium* that Mark had died on Easter Sunday, 25 April, in the eighth regnal year of Emperor Nero.¹⁷⁵ This same eighth regnal year of Nero ended according to Marianus's calculations precisely in AD 45. The fact that it had been ninety-five years since the last time (51 BC) Easter Sunday fell on 25 April, and would be another ninety-five years (AD 140) before Easter Sunday would again fall on 25 April, was proof once again in Marianus's eyes that the Latin tradition was correct.¹⁷⁶

Iudeis lapidatus vindicantes in eo quod Paulum interficere non potuerunt.' The death of Jacob was indeed commemorated on 25 March: Arno Borst, *Der karolingische Reichskalender und seine Überlieferung bis ins 12. Jahrhundert*, Monumenta Germaniae Historica, Libri memoriales, 2, 3 vols (Munich, 2001), I, 713.

¹⁷³ Notker Balbulus, *Martyrologium*, ed. by Jacques-Paul Migne, Patrologia Latina, 131 (Paris, 1853), cols 1025–1164 (25 March).

¹⁷⁴ Vatican City, BaV, MS Palatinus 830, fol. 106': 'Quoniam itaque viii kal. apr. in pascha passus sit Iacobus et hoc in anno xxx post passionem factum est iuxta totam aeclesiam atque omnes historicos, satis apparet quod vi kal. apr. surrexit Dominus.'

¹⁷⁵ Vatican City, BaV, MS Palatinus 830, fol. 106': 'Marcus evangelista carne exiuitur sancto die paschae vii kal. mai. ut legitur in martirologio'; and Notker Balbulus, *Martyrologium*, 25 April: 'Qui videntes eum die sancto VIII [*corr.* VII] Kal. Maii missas facientem, miserunt funem in collo ejus et trahebant eum ad loca Bucoliae, quae erant juxta mare sub rupibus ubi erat ecclesia constructa. Et inter trahendum insultantes dicebant: Trahamus bubulum ad loca buculi. Hoc autem ideo quia statura procerus erat. Et prae nimio cruciatu, defluebant carnes ejus in terram, ac saxa inficiebantur sanguine. Vespere autem facto, miserunt eum in carcerem, ubi circa mediam noctem, primo angelica visitatione confortatus, deinde ipso Domino sibi apparente ad coelestia regna vocatus est. At mane, dum trahe-retur ad loca Bucoliae, gratias agens et dicens: "Domine, in manus tuas commendo spiritum meum", defunctus est, et a viris religiosiis sepultus in loco lapidis excisi cum gloria. Ordinaverat autem pro se Alexandriae episcopum Anianum. Alios quoque longe lateque episcopos et presbyteros et diaconos Ecclesiis dederat. Passus est autem octavo Neronis anno.' The death of the evangelist Mark was indeed commemorated on 25 April: Borst, *Der karolingische Reichskalender*, II, 813.

¹⁷⁶ Vatican City, BaV, MS Palatinus 830, fol. 106': 'Quoniam igitur indictione xa inceptit primus annus Neronis, in xxv anno post passionem et indictione tertia octavus eiusdem annus finitur, in anno xxxiii post passionem in quo vii kal. mai. dominico die pascha passus est Marcus,

Chronography in support of the Latin tradition. In Book II Marianus had already demonstrated that the chronicle of Eusebius and Bede counted four years too few for the period stretching from Tiberius's eighth regnal year up to and including the first regnal year of Vespasian.¹⁷⁷ Using Isidore's chronicle, however, he made a second correction to Eusebius and Bede. According to Marianus, Isidore recorded the reigns of Decius (+16) and Galerius (+2).¹⁷⁸ By this means he explained the difference of eighteen years between the date of Christ's Birth according to the gospel verity (1 VA) on the one hand and His Incarnation according to the chronicle of Eusebius and Bede (19 VA) on the other.¹⁷⁹ He adds that possible errors in this reasoning would be more than compensated for by the incontrovertible validity of the Latin tradition.¹⁸⁰ In other words, Marianus here puts his own claim into perspective and ultimately adds just one year to Galerius (320 VA).

In the end Marianus also decided to scrutinize the chronicle of Eusebius and Bede systematically for the period starting with the first regnal year of Diocletian (285) up to and including the sixth regnal year of Justinian, which was also the first year of a 532-year Dionysian cycle (AD 532). Bede had already made it clear that this year was also the 248th regnal year of Diocletian.¹⁸¹ The method followed by

et pagani carnes eius in terram radiebant, tamen adhuc spiritum retinens usque mane, nonne emicat quod Christus vi kal. apr. resurrexit a mortuis? Pascha enim vii kal. mai. non ante vel post praedictum annum quam xcv annis habetur.'

¹⁷⁷ Marianus Scottus, *Chronicon*, 2:19.

¹⁷⁸ Isidore of Seville, *Chronicon*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 83 (Paris, 1850), cols 1017–58, 6:89 and 6:98. Isidore attributed only one year to Decius, however. It is not clear on what manuscript Marianus attributed sixteen years to Decius.

¹⁷⁹ Vatican City, BaV, MS Palatinus 830, fol. 124^r: 'A Decio imperatore huc usque papae per annos octo cathedram tenuerunt iuxta cronicam Eusebii, quamdiu vero secundum martirologium sederunt, dicendum est: Decius regnavit annis xvi. Fabianus papa passus xiii kal. feb. in anno primo Decii. Inde Cornelius papa annis ii mensibus viii passus xviii kal. oct. in anno iii^o Decii. Inde Lucius papa annis iii mensibus v passus sub Valeriano praefecto in anno vii Decii iiii non. mar. Zefanus papa annis vii mensibus v passus sub Valeriano praefecto vii non. aug. in anno xiiii Decii. Sixtus papa ii annis passus viii id. aug. in anno xvi Decii. Laurentius quoque et Agapitus Felicissimus atque Ipolitus passus sub Decio, si aelesia non fallitur. Damnum ergo annorum xviii in cronicis Eusebii et Bedae ab anno xv Tiberii in anno x magni cicli iuxta historiam sacri evangelii, ad ciclum Dionissii implement isti anni xvi Decii et duo anni Galerii, teste Isidoro episcopo, quod ii annis regnavit.'

¹⁸⁰ Vatican City, BaV, MS Palatinus 830, fol. 124^r: 'Quod si autem aliquid his rationibus obsistit, ecce aliter resurrectionem Domini iuxta historiam inquirimus.'

¹⁸¹ Vatican City, BaV, MS Palatinus 830, fol. 148^v: 'Cum ergo supputando a Diocletiano usque ad ciclum Dionissii dicit Beda primum annum cicli Dionissii ipsum fuisse annum ccxlviii Diocletiani

Marianus consisted of two separate counts: in the descending count, he counted the years according to the chronicle of Eusebius and Bede; in ascending count he based himself on all other authoritative texts containing chronological data concerning the same period.¹⁸² It is important to note that Marianus also indicates explicitly why he carried out this comparative counting. After all, he wanted to prove not only the fallibility of the chronicle of Eusebius and Bede, but also the validity of the Gospels and of those who had already maintained that according to the Latin tradition Christ had risen on Friday 27 March (luna xvii).¹⁸³ Marianus had in mind especially Jerome of Strido and Augustine of Hippo, but he also mentions Victorius of Aquitaine and Cassiodorus Senator (d. c. 580) in this context.¹⁸⁴ Marianus's reference to Victorius of Aquitaine is erroneous, however, in as much as this author maintained that Christ had risen on 28 March (luna xvi).¹⁸⁵

The result of Marianus's double counting was that he ultimately counted seven years more than Eusebius and Bede, namely 254 instead of 247 years.¹⁸⁶ Because the

post consulatu Lampadii et Orestis, satis quod verum est ostendit, annum primum cicli Dionissium esse Iustiniani.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 4518).

¹⁸² Vatican City, BaV, MS Palatinus 830, fol. 148^v: 'Et ipso itaque primo anno cicli Dionissi, id est vi anno Iustiniani numerando supra versus usque ad Diocletianum iuxta cronicam Eusebii vel Bedae supputemus, atque idem iterum usque ad ciclum Dionisi secundum scripturam divinam apostolicosque viros qui tunc temporibus ipsis etiam de ipsis annis bene disputaverunt.'

¹⁸³ Vatican City, BaV, MS Palatinus 830, fol. 148^v: 'non tantum ut ostendimus mendacium cronicarum sed ut defendamus sacratissimam veritatem evangelicam, virosque catholicos aeclesiae qui post evangelium perhibent Dominum nostrum Ihesum Christum vi kal. apr. luna xvii a mortuis resurrexisse, id est Hieronimus et Augustinus'.

¹⁸⁴ Vatican City, BaV, MS Palatinus 830, fol. 148^v: 'Victorius etiam ad Hilarium papam sic: "Primo vero azemorum die Dominus nostrum Ihesum Christum coenans cum suis discipulis postquam sui corporis et sanguinis sacramenta patefecit ad montem Oleveti sic evangelia sancta testantur progressus, ibique detentus est a Iudeis tradente discipulo. Dehinc via feria subsequente, id est viii die kal. apr. crucifixus est et sepultus, tertio die, hoc est vi die kal. apr. dominico die resurrexit a mortuis" et reliqua. Cassiodorus quoque senator expositore sacri psalteri in sua cronica sic: "His consulibus Dominus noster Ihesus Christus passus est viii die kal. apr. et deffectio solis facta est qualis antea vel postmodum numquam fuit" et reliqua.' See also Cassiodorus Senator, *Chronicon*, Tiberius Caesar III.

¹⁸⁵ Victorius of Aquitaine, *Prologus ad Hilarium archidiaconum*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, pp. 17–26, ch. 9.

¹⁸⁶ Vatican City, BaV, MS Palatinus 830, fol. 147^r and 150^r: 'Iste annus nativitatis Domini secundum cursum solis et lunae secundo continetur. Huc usque ciclus magnus pascalis quingen-torum xxx duorum annorum protenditur in cuius anno xiii Dominus noster Ihesus Christus passus

end point was not under discussion (Diocletian 248 = Justinian 6 = AD 532), Marianus had no choice but to alter the starting point. He therefore had this first regnal year of Diocletian begin in AD 278 (=300 VA).¹⁸⁷ For this ascending counting, Marianus made particular use of the correspondence between Pope Leo I (d. 461) and Paschasius of Lilybaeum (d. after 451) concerning the Easter controversies of the middle of the fifth century.¹⁸⁸

In the remainder of his chronicle Marianus systematically stresses the repetitive nature of a 532-year cycle when it came to the dates of Christ's Birth and Passion. Thus he noted AD 511 (=22 BC) as the date of Christ's Birth and AD 544 (=AD 12) as the date of His Passion according to the Latin tradition.¹⁸⁹ Marianus did the same thing at the end of his chronicle, namely for the year 1076 (=AD 12).¹⁹⁰ A final remarkable detail in Book III is the dating of the death of St Benedict, namely on Easter Saturday, 21 March 604. Unlike Abbo of Fleury, Marianus preferred 604, his main reason for doing so being that the alternative (509) would make Benedict much too young to have performed such illustrious acts of faith.¹⁹¹

viii die kal. apr. luna xv, atque vi kal. apr. luna xvii a mortuis resurrexit anno xviii imperii Tiberii caesaris iuxta historiam evangelii. [...] Anno tertio decimo magni cycli paschalis, id est octavo decimo Iustiniani annus dominicae passionis secundo continetur., non antea, id est anno passionis primo et modo secundo. A passione igitur Christi usque in praedictum annum habetur cyclus magnus paschalis numero dxxxii annorum.'

¹⁸⁷ Vatican City, BaV, MS Palatinus 830, fol. 165^v: 'In hoc anno dominica passio secundum cursum solis et lunae tertio habetur, hoc est a passione Christi duo magni cycli, id est ilxiii anni.'

¹⁸⁸ Vatican City, BaV, MS Palatinus 830, fol. 152^r: 'Si sanctus pater abbas Benedictus sicut sui scribunt xii kal. apr. sabbato sancto paschae obiit, in hoc anno videtur obisse. Nisi enim in anno nonagesimo sexto ante istum annum obitus eius ita non habetur, qui tunc si natus valde parvus fuit, in hoc autem anno aetatis suae plus minusve nonagesimo obisse posset.'

¹⁸⁹ Vatican City, BaV, MS Palatinus 830, fol. 149^r: 'Inter Diocletianum autem atque cyclum Dionissi per ciclos xiii decennovennales desunt vii anni quos sic iuxta divinam scripturam possumus bene investigari.'

¹⁹⁰ Vatican City, BaV, MS Palatinus 830, fol. 149^{r-v}: 'Diocletianus enim in anno cclxxviii incarnationis secundum Dionisium incipiens regnavit annis xx [...] Iustinianus in anno ccl Diocletiani incipiens regnavit annis v usque ad primum annum cyclorum Dionissii, qui est annus cclv Diocletiani iuxta praedictam rationem sanctorum virorum, non annus cclxviii per cronicas iniquas.'

¹⁹¹ Vatican City, BaV, MS Palatinus 830, fols 149^v–150^r: 'Certum est enim annum quartum Constantini et Constantis, qui est annus cccxxxiii incarnationis secundum Dionisium, indictione vi constetisse teste sancto Iulio papa etiam tunc ipsam rem scribente; annum etiam nonum Honorii, qui est annus quadringentesimus septimus decimus incarnationis secundum Dionisium, indictione xva consulatu Honorii undecies et Constantii bis teste episcopo Paschassino cum sancto Leone papa; annum itam vigesimum primum Theodosi, qui est annus quadringentesimus quadragessimus quartus incarnationis secundum Dionisium, indictione xiia teste eodem episcopo Paschas-

Conclusion for Book III: Towards a synthesis of chronology and chronography. Book III of Marianus's chronicle is the least innovative from a computistical perspective. Marianus only applied the correction of twenty-two years from Book II to Christian world history (AD 12 = 34 VA). He continued, however, to pay consistent due attention to the date of Christ's Passion according to the Greek tradition (AD 42) and according to the chronicle of Eusebius and Bede (AD 29). The most striking aspect of Book III is undoubtedly the method of multiple dating for each year. In addition to the dual Incarnation reckoning (AD and VA), Marianus also provided both chronographical (consulary years, regnal years) and chronological (concurrents, golden number) information. In so doing he was able to test chronography, in this case the chronicle of Eusebius and Bede, against the chronological requirements, and he recalculated the first regnal year of Diocletian (278 instead of 285). Although this new dating had no direct bearing on his correction of twenty-two years (AD 12 = 34 VA), Marianus was hereby able to reconcile chronology and chronography. In this respect, too, the originality of his chronicle cannot be underestimated.

Emendationes and Cycli magni paschales (c. 1076)

The completion of Marianus's chronicle in 1073 did not bring an end to his computistical activities. This is demonstrated not only by the continuation to 1082 found in the Vatican manuscript itself, but also by the folios in the current compilation that precede the chronicle proper. They contain among other things three emendations and an Easter table. They date presumably from the same period as the *inquissitio* (1076) that follows immediately in the manuscript. Given that they do not make sense on their own, it is logical to assume that these emendations

sino cum sancto papa Leone; annum quoque quintum Marciani indictione octava qui est annus quadringentesimus quinquagesimus quintus incarnationis secundum Dionisium teste etiam sancto Leone papa, ut supra. Annus itaque quartus Constantinorum sexta indictione scribente sanctissimo Iulio papa; in anno nono Honorii pascha erat x kal. mai. teste episcopo Paschassino cum sancto Leone papa; in anno xxi Theodosii pascha erat ix kal. mai. teste Paschassino episcopo cum Leone papa; in anno quinto Marciani pascha erat viii kal. mai. A nullo vero papa vel episcopo mittitur epistola vel decretalis epistola scribitur, nisi ipse sciat quid in ea scribit vel mittit.' See also Paschasinus of Lilybaeum, *Epistola ad Leonem papam de ratione Paschae*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Der 84jährigen Ostercyclus und seine Quellen*, pp. 247–50, chs 1–2, and Leo I papa, *Epistola quarta ad Marcianum augustum*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Der 84jährigen Ostercyclus und seine Quellen*, pp. 264–65, ch. 1. On these Easter controversies, see Declercq, *Anno Domini*, pp. 76–80.

function as implementations and illustrations of the computistical theories that Marianus had developed in his chronicle.

The first emendation (fols 4^r–10^v) is a chronological list of Roman emperors and consuls according to the corrected reckoning and accompanying regnal years.¹⁹² As he had done in Book II of the chronicle, in the right-hand column Marianus provided the necessary space for the Dionysian reckoning and the regnal years, both according to the chronicle of Eusebius and Bede. The discrepancy with the gospel verity is twenty-two and eighteen years, respectively, whereby this chronological scheme bears a strong resemblance to the beginning of Marianus's Book III. At the end of this list Marianus repeats once again his explicit preference for the Latin tradition.¹⁹³ (See Table 32.)

The second emendation (fols 10^v–11^v) is more difficult to interpret. It presumably functioned as a variant of the first. It seems that Marianus is here attempting to combine the discrepancies identified in the above-mentioned emendation with each other chronographically.¹⁹⁴ In the process he used especially Cassiodorus Senator and Paulus Orosius. Ultimately Marianus achieved the desired results, for in the final year of this list (355 VA), the third regnal year of Constantine and Constance did indeed coincide with the 333rd year of Dionysius's reckoning.¹⁹⁵

Finally, the third emendation (fols 11^v–15^r) is yet another variant of the first, the only difference being that regnal years are replaced by pontifical years. For this Marianus used mainly martyrologies and papal decretals.¹⁹⁶ The chronological

¹⁹² Vatican City, BaV, MS Palatinus 830, fol. 4^r: 'Reges romanorum sicut vere regnaverunt iuxta historiam sacri evangelii per annos verissimae incarnationis quae mineo colore conscribitur.'

¹⁹³ Vatican City, BaV, MS Palatinus 830, fol. 10^v: '553: Explicit magnus ciclus paschalis quingentorum triginta duorum annorum, in cuius secundo anno iuxta Dionisium natus est Dominus, sed secundum historiam sacri evangelii -in quo nihil fallitatis habetur teste etiam sic sancto Augustino- in anno tertio decimo eiusdem cicli Dominus noster Ihesus Christus octavo die kalendarum Aprilium luna quinta decima passus est, atque etiam sexto die kl. apr. luna septima decima a mortuis resurrexit anno octavo decimo imperii Tiberii caesaris secundum evangelium Iohannis, hoc est in anno duodecimo incarnationis iuxta Dionisium.'

¹⁹⁴ Vatican City, BaV, MS Palatinus 830, fol. 10^v: 'Alia secundo vestigio emendatio annorum incarnationis iuxta Hieronimum qui dicit Paulum post decem et septem annos conversionis suae locutum fuisse in Hierusalem cum Petro; et Cassiodorum ponentem quattuor annos inter Neronem et Vespasianum, et Orosium dicentem Decium tribus annis regnasse.'

¹⁹⁵ See also Marianus Scottus, *Chronicon*, 3:355.

¹⁹⁶ Vatican City, BaV, MS Palatinus 830, fol. 11^v: 'Tertia emendatio annorum incarnationis tertio vestigio secundum martirologium et passiones paparum et decretales epistolas eorum, quas ipsi papae praedicti in certis kalendis miserunt et sub consulibus certis nominatis conscripserunt; in quibus habetur Decius per annos decem regnasse auctoritate ecclesiastica in unoquoque anno

Table 32

<i>Regnal years ~ gospels</i>	<i>VA</i>		<i>AD</i>	<i>Regnal years ~ chronicles</i>
Augustus 42	1 VA	° Christ ~ Gospels ¹⁹⁷	[22 BC]	Augustus 24
Tiberius 3	19 VA	° Christ ~ Eusebius and Bede ¹⁹⁸	[4 BC]	Augustus 42
Tiberius 7	23 VA	° Christ ~ Dionysius ¹⁹⁹	AD 1	Augustus 46
Tiberius 18	34 VA	† Christ ~ Gospels ²⁰⁰	AD 12	Tiberius 1
Claudius 7	51 VA	† Christ ~ Eusebius and Bede ²⁰¹	AD 29	Tiberius 18
Claudius 12	56 VA	† Christ ~ Dionysius ²⁰²	AD 34	Tiberius 23
Nero 6	64 VA	† Christ ~ ps.-Theophilus and Bede ²⁰³	AD 42	Claudius 3

scheme remained identical, however, with that of the first emendation, and in this way Marianus reconciled secular and papal sources in his corrected reckoning (VA).

The luni-solar Easter table, too, is an implementation of Marianus's computistical theories laid out in Book I.²⁰⁴ In this 532-year cycle he fixed not only the date of Christ's Passion according to the Latin tradition, but also the date of the Creation of the world and Christ's Birth according to the Hebrew verity. Given the fact that the historical events listed here are sometimes lifted verbatim from Marianus's own chronicle, we are justified in considering this Easter table as a kind of mini-version of it. (See Table 33.)

Resurrectionis Christi inquisitionis (1076)

A few years after the completion of his chronicle Marianus decided to collect the most important theories and results in the form of a tract. The title makes it clear

confirmante, a Fabiano papa, qui passus est sub Decio, usque ad sanctum Laurentium, qui passus est sub Decio.'

¹⁹⁷ Vatican City, MS Palatinus 830, fol. 4^r: 'Christus dominica nocte nascitur.'

¹⁹⁸ Vatican City, MS Palatinus 830, fol. 4^v: 'Incarnatio secundum cronicam Eusebii vel Bedae.'

¹⁹⁹ Vatican City, MS Palatinus 830, fol. 4^v: 'Incarnatio iuxta Dionisium incipit.'

²⁰⁰ Vatican City, MS Palatinus 830, fol. 4^v: 'Christus passus viii kal. apr. luna xv, teste evangelio.'

²⁰¹ Vatican City, MS Palatinus 830, fol. 4^v: 'Annus passionis Christi secundum cronicam Eusebii vel Bedae.'

²⁰² Vatican City, MS Palatinus 830, fol. 4^v: 'Passio et resurrectio Christi iuxta Dionisium. In anno passionis secundum Dionisium cena dominica dominico die xii kal. apr. et resurrectio Christi v kal. apr. luna xxi contra quatuor evangelia.'

²⁰³ Vatican City, MS Palatinus 830, fol. 5^r: 'Resurrectio Christi viii kal. apr. secundum Bedam.'

²⁰⁴ Marianus Scottus, *Chronicon*, 1:7.

Table 33

<i>x</i> / 532		[AD]	[AM]
2/532	° Christ ~ Dionysius ²⁰⁵	AD 1	AM 4205
13/532	† Christ ~ Gospels ²⁰⁶	AD 12	AM 4216
35/532	† Christ ~ Dionysius ²⁰⁷	AD 34	AM 4238
43/532	† Christ ~ ps.-Theophilus and Bede ²⁰⁸	AD 42	AM 4246
54/532	Caput mundi	4204 BC	AM 1
281/532	° Christ ~ Hebrews ²⁰⁹	253 BC	AM 3952
512/532	° Christ ~ Gospels ²¹⁰	22 BC	AM 4183

that Marianus considered the Resurrection of Christ as the pivotal moment in world history.²¹¹ Because he eagerly wished to know the answer to the question concerning the precise date of Christ's Resurrection, Marianus took it upon himself to pursue the issue, partly based on the use of authoritative sources, partly based on critical reasoning.²¹² In one sentence he summed up four important points of departure pertaining to the date of Christ's Passion: (1) according to the

²⁰⁵ Vatican City, MS Palatinus 830, fol. 18^r: 'Incarnatio iuxta Dionisium in anno octavo imperii Tiberii caesaris, hoc est in anno xxiii incarnationis secundum historiam evangelii.'

²⁰⁶ Vatican City, MS Palatinus 830, fol. 18^r: 'Resurrectio Christi vi kal. apr. luna xvii teste evangelio.'

²⁰⁷ Vatican City, MS Palatinus 830, fol. 18^r: 'Secundum Dionisium annus passionis et contra evangelium.'

²⁰⁸ Vatican City, MS Palatinus 830, fol. 18^r: 'Passio Domini secundum Bedam.'

²⁰⁹ London, MS Cotton Nero C V, fol. 21^r: 'Incarnatio secundum Hebreos'; not in Vatican City, MS Palatinus 830, fol. 21^r.

²¹⁰ London, MS Cotton Nero C V, fol. 24^r: 'Hic est annus rectae et evangelicae incarnationis'; not in Vatican City, MS Palatinus 830, fol. 24^r.

²¹¹ Vatican City, BaV, MS Palatinus 830, fol. 26^r: 'In nomine sanctae divinitatis. Resurrectionis Christi inquisitio incipit quam Marianus Hibernensis inclusus congregavit.'

²¹² Vatican City, BaV, MS Palatinus 830, fol. 26^r: 'Divino informamur praecepto, ut, quod nobis ab aliis fieri volumus hoc cum hilaritate illis impendamus. Quia ergo gratanter a quovis suscipiem rationem, ubi primus fuerit resurrectionis dominicus dies atque cur quintusdecimus annus Tiberii caesaris iuxta cronicam Eusebi vel Bedae prespiteri sive etiam magni cicli Dionisii trigesimus quintus annus, qui eo, quod secundus eiusdem cicli annus nativitatis Domini dicitur, dominicae passioni deputatur evangelice veritati atque ecclesie, quae Dominum in xiiiiia luna primi mensis, id est in pascha Iudeorum, feria quinta, traditum asserunt et feria via, parasceve luna quintadecima crucifixum, necnon martirologio sancti Hironimi, quod in via kal. apr. eum resurrexisse ostendit, nichil horum habentes contradicant, quod cum magno labore partim magistrata auctoritate, partim ratione ducente vix tandem consecutus sum.'

chronicle of Eusebius and Bede, Jesus had begun his public life in the fifteenth regnal year of Tiberius;²¹³ (2) according to a 532-year Dionysian cycle, Christ had died in the thirty-fifth year of a 532-year cycle (35/532); (3) according to the gospel data, Christ died on a Friday and on luna xv; and finally, (4) according to the so-called *Martyrologium Hieronymianum*, Christ had risen on 27 March.²¹⁴ Marianus once again stressed here that all the data in his chronicle are based either on *auctoritates* or on critical reasoning, in this case computistics.²¹⁵

Next Marianus referred to three different traditions pertaining to the date of Christ's Resurrection: 25 March, 27 March, and 28 March.²¹⁶ Like Bede, he subsequently associated these dates with the established lunar fact that Christ had risen on luna xvii.²¹⁷ This rendered the third tradition (28 March) invalid, because this luni-solar combination was to be found here only in AD 191 and 57 BC.²¹⁸ Nor

²¹³ Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3981).

²¹⁴ Pseudo-Jerome of Strido, *Martyrologium Hieronymianum*, 25 and 27 March.

²¹⁵ Vatican City, BaV, MS Palatinus 830, fol. 26': 'Si sit in hac qua datur caritate, qui accipiat devotus offero ea conditione, ut, si placeat, Deo gratias refferat; sin autem me dente canino rodere disinat, presertim cum nil suadeam, quod aut auctoritate aut ratione non probetur.'

²¹⁶ Vatican City, BaV, MS Palatinus 830, fol. 26': 'Resurrectionis itaque Christi tres opiniones traduntur; sed quae sit harum verax, dubie vel numquam posse fertur quemquam conscripsisse.'

²¹⁷ Vatican City, BaV, MS Palatinus 830, fol. 26': 'Unde etiam sanctus Beda contestatur dicens: "Ubi autem dominicae resurrectionis dies primus fuerit, varie refertur: quidam enim octavo kal. apr., alii vi, nonnulli quinto kal. earundem die fuisse asseverant. Ubi notandum est, quia si octavo kal. memoratarum, ut antiquiores scripsere, resurrectio Domini facta est, quintus profecto circuli decennovennalis tunc agebatur annus habens concurrentes vii et lunam xiiiia, ut semper undecimo die kal. apr. Si vero vi kal. apr. die Dominus resurrexit, tertiusdecimus circuli prefati tunc extitit annus quinque concurrentes habens et lunam quartadecima, sicut semper nono die kal. apr. Porro si quinto kal. supradictarum resurrectio Christi celebrata est, secundus eiusdem cicli existens annus concurrentes habebat iiii et lunam xiii, sicut semper octavo die kal. apr. Quae cuncta xviae lunae dominici diei, in qua prima sacrosanctae eiusdem resurrectionis sunt acta misteria, cursu panduntur indubio. Quod autem Dominus xva luna, feria via, crucem ascenderit et una sabbatorum, hoc est die dominico, a mortuis resurrexit, nulli licet dubitare catholicorum ne legi, quae agnum pascalem quartadecima die primi mensis ad vesperam immolari praecepit, pariter et evangelio, quod Dominum eadem vespera tentum a Iudeis et mane, feria via, crucifixum ac sepultum, prima sabbati resurrexisse perhibet: videatur incredulus." Haec Beda dixit.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 61 and ch. 47.

²¹⁸ Vatican City, BaV, MS Palatinus 830, fol. 26': 'In his autem tribus prefatis opinionibus secundum lunam resurrectio dominica posset inveniri, ut evangelio conveniret, sed in quinto die kal. apr. iuxta cronicas seu regum annos omnino non potest. Annus enim est incarnationis centesimus nonagesimus primus sive quinquagesimus septimus ante incarnationem secundum Dionysium.'

did the Greek tradition (25 March) coincide with the gospel data. According to Bede's chronicle, the resulting date of Christ's Passion (AD 42) fell during the reign of Claudius, and not that of Emperor Tiberius, as Luke had written.²¹⁹

Moreover, the apostle James died precisely thirty years after the Passion of Christ, on Easter Sunday, 25 March.²²⁰ This Easter Sunday coincided exactly with the year AD 42, from which it followed that the actual Passion of Christ had taken place precisely thirty years previously, namely in AD 12, just as the Latin tradition assumed. Such an Easter Sunday did not occur in AD 72, so that this argument did indeed support the Latin tradition at the expense of the Greek tradition. Based on this reasoning we may deduce that in this *inquisitio*, too, Marianus retained his preference for the Latin.

Next Marianus systematically cites or paraphrases all relevant passages pertaining to the Passion of Christ in the Gospels according to Matthew,²²¹ Mark,²²²

²¹⁹ Vatican City, BaV, MS Palatinus 830, fol. 26^{r-v}: 'In octavo quoque kal. apr., id est in anno quadregesimo secundo incarnationis iuxta Dionisium, hoc est in anno iiii olimpiadis ducentesimae quintae anno tertio Claudi imperatoris secundum cronicam Eusebii vel Bedae, iuxta sacram evangeli historiam non convenit.' See also Marianus Scottus, *Chronicon*, 2:20–21.

²²⁰ Vatican City, BaV, MS Palatinus 830, fol. 26^v: 'Annus enim est trigesimus post passionem Domini, in quo Iacobus filius Alpei viii kal. apr. in die sancto paschae passus anno xxx sui episcopatus in hierusalem, in quo consecratus erat a beato Petro et Iacobo et Iohanne filiis Zebedei, id est in vi kal. ian. in anno passionis Christi.' See also Marianus Scottus, *Chronicon*, 3:64.

²²¹ Vatican City, BaV, MS Palatinus 830, fol. 26^v: 'Qualiter vero resurrectio Christi in evangelio confirmatur sic secundum Matheum habetur: "Scitis, quia post biduum Pascha fiat et filius hominis tradetur, ut crucifigatur"; et infra: "Prima autem die azemorum accesserunt ad Iesum discipuli eius dicentes: Ubi vis, paremus tibi comedere Pascha. At Iesus dixit: Ite in civitatem ad quendam, et dicite ei: Magister dicit: Tempus meum prope est, apud te facio Pascha cum discipulis meis. Et fecerunt discipuli, sicut constituit illis Dominus, et paraverunt Pascha. Vespere autem facto discumbebat cum xii discipulis suis. Et edentibus illis dixit: Amen dico vobis, quia unus vestrum me traditurus est."; et post: "Omnes vos scandalum patiemini in me in ista nocte."; et ait Petro: "Amen dico tibi, quia in hac nocte, antequam gallus cantet, ter me negabis." See also Matt. 26. 2, 17–21, 31, and 34.

²²² Vatican City, BaV, MS Palatinus 830, fol. 26^v: 'Marcus sic: "In illo tempore erat Pascha et azima post biduum et reliqua usque dum dicit: Et paraverunt Pascha. Vespere autem facto venit cum xii et discumbentibus eis et manducantibus ait Iesus: Amen dico vobis, quia unus ex vobis me tradet, qui manducat mecum etc. Et ait illi Iesus: Amen dico tibi, hodie, quia in nocte hac, priusquam gallus bis vocem dederit, ter me es negaturus, et reliqua usque dum dicit: Et statim iterum gallus cantavit. Et recordatus est Petrus verbi Iesu, quod dixit illi: Priusquam bis gallus dederit vocem, ter me es negaturus. Et cepit flere. Et confestim mane vinctum Iesum tradiderunt Philato. Et cum iam sero esset factum, quod erat parasceve, quod est ante sabbatum, venit Iosep et deponens corpus possuit eum in monumento" et reliqua.' See also Mark 14. 1, 16–18, 30, and 72; 15. 1 and 42–46.

Luke,²²³ and finally John.²²⁴ According to Marianus, John had maintained that Christ had died on luna xv and had risen on luna xvii.²²⁵ This is a remarkable interpretation, because John had in fact fixed both one lunar day earlier, and thus set himself apart from the synoptic chronology.²²⁶ Marianus drew two further conclusions. He decided that Christ had embarked upon His public life at the age of thirty and that His actual preaching had lasted 3.5 years.²²⁷ Armed with this triple

²²³ Vatican City, BaV, MS Palatinus 830, fol. 26^v: ‘Lucas sic: “Venit autem dies azemorum, in qua necesse erat occidi Pascha. Et missit Petrum et Iohannem dicens eis: Euntes parate nobis Pascha, ut manducemus. Et paraverunt Pascha. Et cum facta esset hora, discubuit et xii apostoli cum eo. Et ait illis: Desiderio desideravi hoc Pascha manducare vobiscum, antequam patiar. Dico enim vobis, quia ex hoc non manducabo illud, donec impleatur in regno Dei.”; et post: “Verumtamen manus tradentis me mecum est in mensa” et reliqua.’ See also Luke 22. 7–8, 13–16, and 21.

²²⁴ Vatican City, BaV, MS Palatinus 830, fols 26^v–27^r: ‘Iohannes sic: “Ante diem autem festum paschae sciens Iesus, quia venit hora eius, ut transiret ex hoc mundo ad patrem, cum dilexit suos, qui erant in mundo, in finem dilexit eos. Et cena facta est, cum diabolus iam mississet in cor, ut traderet eum Iudas Simonis Scariothis” et reliqua. “Ad ducunt ergo Iesum ad Philatum in pretorium. Erat autem mane et ipsi non introierunt in pretorium ut non contaminarentur, sed manducarent Pascha” et cetera. “Et dixit Philatus ad eos: Est autem consuetudo [vobis] ut unum dimittam vobis in Pascha: Vultis ergo demittam vobis regem Iudeorum” et reliqua. “Et sedit Philatus pro tribunali in loco, qui dicitur Lithostrotus, ebraice autem Golgotha. Erat autem parasceve, paschae hora quasi via. Et dicit Iudeis: Ecce rex vester. Illi autem clamabant dicentes: Tolle, tolle, crucifige eum. Dicit eis Pilatus: Regem vestrum crucifigam. Responderunt pontifices et dixerunt: Non habemus regem nisi Cesarem. Tunc eis illum, ut crucifigeretur, tradidit. Susceperunt autem Iesum, et eduxerunt, et baiolans sibi crucem exierunt in eum, qui dicitur Calvarie locum, ebraice autem Golgotam, ubi eum crucifixerunt et cum eo alios duos hinc et inde, medium autem Iesum” et reliqua. “Iudei ergo, quoniam parasceve erat, ut non remaneret in cruce corpora sabato, erat enim magnus dies ille sabati, rogaverunt Philatum, ut frangerentur eorum crura et tollerentur. Venerunt ergo milites, et primi quidem frugerunt crura et alterius, qui crucifixus est cum eo. Ad Iesum autem, cum venissent, ut viderunt eum iam mortuum, non frugerunt eius crura, sed unus militis lancea latus eius aperuit, et continuo exivit sanguis et aqua. Et qui vidit testimonium perhibuit: et verum est testimonium eius. Et ille scit, quia vera dicit” et reliqua.’ See also John 13. 1–2; 18. 28 and 38–39; 19. 13–18 and 31–35.

²²⁵ Vatican City, BaV, MS Palatinus 830, fol. 27^r: ‘Si ergo testimonium sancti Iohannis verum est, et hoc aliaque multa sunt vera, Dominus xiiiiia luna ad vesperam feria va qua vetus pascha vertit in novum a Iuda traditus est et agnus immaculatus immolari incepit, ac mane luna xva parasceve pasce hora quasi via crucem ascendit, tertioque die luna xviiia valde mane prima sabatorum a mortuis surrexit.’

²²⁶ See the Introduction, the subsection on ‘The Gospel Evidence’ under ‘The Dates of Christ’s Birth and Passion: The Search for the Year of Christ’s Passion’.

²²⁷ Vatican City, BaV, MS Palatinus 830, fol. 27^r: ‘Quod autem xxxa annorum Christus baptizatus sit, sicut evangelista Lucas et sanctus Hironimus contestantur, et tribus annis ac demidio post

gospel verity, Marianus next scrutinized all chronological and chronographical data concerning the date of Christ's Passion.

Marianus began his reasoning with a chronological argument. He noted first the luni-solar functionality of a 532-year cycle, whereby the thirty-fifth year of a 532-year Dionysian cycle (35/532) could be equated with the year 566.²²⁸ The computistical parameters for this year agreed, after all, with those of the date of Christ's Passion according to the Dionysian Incarnation era (AD 34).²²⁹ Easter Sunday for this year (28 March, luna xxi), however, did not match the Latin tradition (27 March, luna xvii).²³⁰ Consequently Marianus rejected the accuracy of the Dionysian reckoning.

Next Marianus embarked on a chronographical study based on the chronicle by Eusebius and Bede. He took as his point of departure the fifteenth regnal year of Tiberius, which also coincided with the first year of Jesus's public life. Marianus counted precisely 504 years between the fifteenth regnal year of Tiberius and the 248th regnal year of Diocletian, which was simultaneously the first year of a 532-year Dionysian cycle (1/532).²³¹ Consequently the fifteenth regnal year of Tiberius

suum baptismum praedicavit, non solum in evangelio suo Iohannes commemorato tempore rediuntis paschae perdocet sed etiam in sua apocalipsi, et Daniel quoque in visionibus suis idem profetice designat.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

²²⁸ Vatican City, BaV, MS Palatinus 830, fol. 27r: 'Quoniam itaque circulus magnus pascalis qui ciclum Dionissii praecessit et in cuius secundo anno iuxta Dionissium natus est Dominus, quingentis triginta duobus annis circumvolvitur, ipsis dxxxii annis triginta quinque annos adde de ciclo Dionissii, fiunt quingenti sexaginta vii anni; sublato tum primo anno, qui praecessit nativitatem Domini, fiunt dlxvi anni.'

²²⁹ Vatican City, BaV, MS Palatinus 830, fol. 27r: 'Ipse ergo quingentesimus sexagesimus sextus annus incarnationis secundum Dionisium est annus passionis Domini; quia sicut quingentesimus trigesimus tertius annus incarnationis, qui est secundus annus cycli Dionissii anno nativitatis Domini, ita annus quingentesimus sexagesimus sextus incarnationis, qui est annus trigesimus quintus cycli eiusdem Dionissii, anno trigesimo quarto incarnationis, id est passionis Domini, per universum solis ac lunae cursum concordat.'

²³⁰ Vatican City, BaV, MS Palatinus 830, fol. 27r: 'In quo anno passionis secundum Dionisium xiiiia luna in qua iuxta evangelium cena dominica quinta feria atque agnus Dominus immolari coeperit apud Dionissium xii kal. apr. in die dominico contegit, cum die nono kal. apr. quinta feria fieri oporteret, et in dominico die resurrectionis quinto die kal. apr. luna xxaia, quod luna xviia vi die kal. apr. pervenire deberet.'

²³¹ Vatican City, BaV, MS Palatinus 830, fol. 27r: 'Quia autem teste sancto Hironimo secundum cronicam Eusebii et hoc est etiam iuxta cronicam Bedae ab anno xv° Tiberii cesaris et praedicatione Christi usque in annum quartum decimum Valentis, quo obiit, anni sunt cccli, id est olimpiades lxxxviii minus uno anno, quod est inter annum xv Tiberii et primum annum Deocletiani

fell in AD 27 (28/532) and the eighteenth regnal year of the same Emperor fell in AD 30 (31/532).²³² There is no contradiction between this passage and the one in Marianus's Book II (2:18). If there are 504 years between the fifteenth regnal year of Tiberius and the first year of a 532-year Dionysian cycle, then there are indeed 505 years from Tiberius's fifteenth regnal year to that same first year of a 532-year Dionysian cycle.

However, Marianus rejected this calculation and ultimately two possibilities remained: either Christ was resurrected on 27 March AD 12 (Latin tradition), or Christ was resurrected on 25 March AD 42 (Greek tradition).²³³ With his phrase *iuxta historiam sancti evangelii*, however, Marianus left little room for doubt that he felt that only the former tradition was in agreement with the Gospels. He provided the Latin tradition with extra support in the form of the *auctoritates* of Jerome and Augustine.²³⁴

It was difficult for Marianus to understand why serious research had to be undertaken to determine the date of Christ's Passion, when the obituary data of numerous saints was widely known from martyrologies.²³⁵ It was for this reason

cclvi anni, atque primus annus ciclorum Dionissii teste Beda iuxta cronicam eandem vel suam, annus est ccxlviii tyranni Diocletiani; fiunt inter annum quintumdecimum imperii Tiberii et primum annum cicli Dionissii sic quingenti iiii anni, hoc est ciclus magnus paschalis minus xxviii annis.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 4518).

²³² Vatican City, BaV, MS Palatinus 830, fol. 27^{r-v}: 'Annus ergo xv Tiberii est iuxta cronicam Eusebii vel Bedae vigesimus octavus magni cicli, et octavus decimus Tiberii, id est annus passionis, trigesimus primus eiusdem cicli, qui est annus trigesimus incarnationis secundum Dionissium.'

²³³ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'In quo anno nunquam Christus baptizatus nec in altero passus, sed in anno octavo decimo ante eum annum passionis nomine, si vi die kal. apr. resurrexit Dominus iuxta historiam sancti evangelii sive in anno duodecimo postea, si in octavo die kal. apr. secundum Bedam resurrexit.' On Bede's preference for the Greek tradition, see the Introduction, the subsection on 'The Greek Tradition (Resurrection = 25 March)' under 'The Dates of Christ's Birth and Passion: The Search for the Year of Christ's Passion'.

²³⁴ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'Quorum duodecim annorum incrementum, ut in octavo die kal. apr. resurrectio Christi conveniret secundum Bedam vel Teophilum, aut maxime detrimentum annorum octo et x, quod ut resurrectio Christi iuxta historiam evangelii Hironimique atque Augustini testificatione, in vi die kal. apr. proveniret impedivit, cur vel qualiter contigit nonne dignum est ad scrutandum?' See also pseudo-Jerome of Strido, *Martyrologium Hieronymianum*, 25 March; Augustine of Hippo, *De civitate Dei*, 18:54; Augustine of Hippo, *De trinitate*, 4:5; and Augustine of Hippo, *Quaestiones in Heptateuchum*, 2:90.

²³⁵ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'Cum enim anniversarius dies secundum mensem solarem, hoc est kal., unius martiris sive confessoris vel virginis, peccatoris hominis et creature, in ecclesie libris scribitur et honoratur, Creatoris autem et humane redemptionis dubitatur, quis inde non uritur, nisi a quo amatur minus.'

that he had withdrawn to pore over this neglected problem, so that he might gather every shred of evidence from the Creation to his own *annus praesens* (= 1076) and then present the results to his fellow-brethren for their judgement.²³⁶ This work stood to be of benefit to his fellow monks, as long as it rested on divine inspiration and not merely the force of Marianus's own words.²³⁷ It should be noted that Marianus wrote this prologue, coincidentally or otherwise, in the cycle year of Christ's Passion according to the Latin tradition (13/532 = AD 12 = 544 = 1076).

The final paragraph of Marianus's tract deals with the computistical relationship between the date of Creation (54/532) and the date of Christ's Birth (2/532). By dating the Birth of Christ to AM 4183, he calculated that, as was the case in his chronicle, precisely 230 years were missing in the pre-Christian period according to the Hebrew verity (AM 3952).²³⁸ This lacuna was neatly and chronographically filled based on the Gospel according to Luke, so that in the end a single unbroken line could be traced from Creation to his own time (AM 4183 = 22 BC = 1 VA).²³⁹

Conclusion

A Coherent Computistical and Chronographic Framework

This systematic study of the tripartite chronicle of Marianus Scottus dispels the notion that Marianus jumped haphazardly from one chronological theory to another. The confusion surrounding his work arose, not merely due to incomplete analysis of the chronicle's contents, but also because of the method that Marianus

²³⁶ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'Ab adam igitur usque in presentem, id est in annum milesimum seputagesimum vium incarnationis iuxta Dionisium huiuscemodi neglegentia dolore subtractus quedam pauca, quae in hac inquisitione collegi, iudicandum fratribus donavi.'

²³⁷ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'non propriis viribus sive verborum astucia aut ingenio confissus, sed Dei adiutorio, ut fraterne caritati conferret saltem aliquid, dum legeretur.'

²³⁸ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'Cum enim die dominico quintodecimo kal. apr. in anno liii magni cycli paschalis certum est caput mundi fuisse et incarnationem secundum Dionisium in anno secundo magni cycli constituisse, desunt ducenti triginta anni ab initio saeculi indictione xva usque ad incarnationem iuxta Dionisium indictione quarta.' See also Marianus Scottus, *Chronicon*, 1:10.

²³⁹ Vatican City, BaV, MS Palatinus 830, fol. 27^v: 'Quod damnum quasi emendando secundum evangelistam Lucam interpossumus ut linea recta temporis atque incorrupta ab adam protenderetur usque in diem presentem. Tantum enim damnum annorum habet ebraica veritas a capite mundi iuxta Bedam usque ad incarnationem iuxta historiam sacri evangelii.' See also Marianus Scottus, *Chronicon*, 1:14.

himself employed in writing it. In contrast to, for example, Abbo of Fleury, Marianus made room in his disquisition for the voices of opponents of the Latin tradition, as well. This may strike one as a particularly honest approach to historiography, and yet this 'open vision' needs to be nuanced. Marianus cited these authors primarily in order to then tear them down by means of his arguments. The evidence was consistently presented in service of an already established conclusion, namely that Christ had died on the date fixed by the Latin tradition (AD 12). In this context Marianus twice employed tracts erroneously attributed to Bede in order to refute Bede's own preference for the Greek tradition. Moreover, it was easier for Marianus to add new years than to delete existing and chronographically established ones.

The sources that Marianus knew and employed are impressive. He frequently drew upon the late-Carolingian manuscript Paris, BnF, MS lat. 4860 for passages and inspiration. The most important and most frequently quoted *auctoritates* were Eusebius of Caesarea, Jerome of Strido, Augustine of Hippo, and the Venerable Bede.²⁴⁰ It is striking that Heriger of Lobbes and Abbo of Fleury did not form part of this formidable arsenal of sources. And yet in this context Richard Landes points to a manuscript in which the so-called *Epitome Mariani* (fols 49^r–61^r) is followed immediately by Abbo's *Cycli secundum ordinem annorum* (fols 61^v–62^r).²⁴¹ These tables stem, however, from Abbo's chronographical correction (AD 532 = 535 VA) and have no bearing whatsoever on Abbo's preference for the Latin tradition (AD 12 = 33 VA).

Using this abundance of source material Marianus sought to create a comprehensive framework in which chronology and chronography were reconciled. It was not, however, a reconciliation of equal parties, because chronography had to adapt itself to the results that had already been reached via chronological means. Marianus had decided to make a correction not only to the Hebrew Creation era (AM 4183 instead of AM 3952), but to the Dionysian reckoning, as well (AD 12 = 34 VA). For the chronographical interpretation of these chronological results for the pre-Christian period, Marianus used the Gospel according to Luke. Together with the Septuagint era he inserted the 230 missing years in the reigns of Arphaxat (+100) and Cainan (+130). For the Christian period he compensated for the

²⁴⁰ For a more detailed list, see Waitz, 'Prooemion ad "Chronicon" Mariani Scotti', pp. 490–91, and von den Brincken, 'Marianus Scottus als Universalhistoriker', pp. 982–83.

²⁴¹ The manuscript in question is Leiden, Universiteitsbibliotheek, MS Scaliger 49 (s. X/XI): Landes, 'A Libellus from St Martial of Limoges', p. 185 n. 25.

discrepancy of eighteen years between the chronicle of Eusebius/Bede (19 VA) and the gospel verity (1 VA) with the reigns of Decius (+16) and Galerius (+2).

By means of these chronographical corrections Marianus reconciled chronology and chronography and succeeded where Abbo of Fleury had failed. At the same time he restored the connection between the gospel verity and the Latin tradition. All of his calculations stood in service of this restoration. Marianus felt confident enough to go against the Greek tradition with the *verior sententia* posited by Bede, and distanced himself from all of his predecessors. Even the scribe of the London manuscript was aware of the unique and original position that this Irish chronicle occupied in the historiographical landscape of his day. He wrote: ‘Nulla enim cronica conservat diem mensis solaris resurrectionis Christi iuxta historiam evangelii nisi ista sola.’²⁴²

The Influence of Marianus’s Chronological Correction

Of all the corrections to the Dionysian reckoning, that of Marianus Scottus had the widest dissemination. And yet the corpus of manuscripts we are dealing with is relatively small, which is especially due to the ambitious and highly complex nature of his theories. In Marianus’s own region we may point to the annals of Würzburg (last quarter of the eleventh century) and Disenberg (first half of the twelfth century).²⁴³ More significant, however, is the Creation of the so-called *Epitome Mariani*, a series of eighty-four nineteen-year cycles based on the 532-year cycle that Marianus had himself constructed.²⁴⁴ At the beginning of this long series of nineteen-year cycles we do indeed find clear signs of Marianus’s chronological theories, but on the other hand there are also differences with respect to Marianus’s 532-year cycle.

Table 34

<i>x</i> / 532	<i>VA</i>		<i>AD</i>	<i>x</i> / 532
2/532	1 VA	° Christ	22 BC	512/532
35/532	34 VA	† Christ	AD 12	13/532
65/532	64 VA	† James	AD 42	43/532
301/532	300 VA	Diocletian 1	AD 278	279/532

²⁴² London, BL, MS Cotton Nero C V, fol. 2^v.
²⁴³ Waitz, ‘Prooemion ad “Chronicon” Mariani Scotti’, p. 483.
²⁴⁴ This *Epitome Mariani* is preserved in Leiden, MS Scaliger 49, fols 49^r–61^r.

Other witnesses to Marianus's influence may be found both on the West European continent and in the British Isles. An initial trail leads us to Sigebert of Gembloux who explicitly borrowed from Marianus's chronicle both in his *Liber decennalis* (1092) as well as in the second version of his chronicle (up to 1111).²⁴⁵ A new chronicle was produced in Affligem, Brabant, in the course of the thirteenth century (up to 1143), which was an amalgamation of the chronicles of Marianus and Sigebert. Traces of these now-lost chronicles are to be found in the thirteenth-century chronicle of Boudewijn of Ninove (c. 1254) and in the fourteenth-century *Annales Elmarenses* (c. 1345).²⁴⁶ Finally, in imitation of Sigebert, John of St Victor (d. 1327) noted the differences between the two Incarnation eras, but in his view the discussion was at that point already superseded.²⁴⁷

The second trail takes us, together with Robert of Hereford (d. 1095), to the British Isles. This Lotharingian bishop attempted in *Excerptio de chronica Mariani* (1086) to cast the difficult and abstract theories of Marianus into a more abbreviated and comprehensible form.²⁴⁸ The work consists of twenty-four chapters, and in it Robert drew from Marianus's prologue and his first two books (1:1–8 and 2:1–7, 59–69). Robert's own additions were limited and completely in line with Marianus. He had, after all, stated in his prologue that the truth about Christ's

²⁴⁵ On the influence of Marianus Scottus on Sigebert's œuvre, see Chapter 5, 'Conclusion: The Search for Intellectual Autonomy'.

²⁴⁶ Pieter Gorissen, *Sigeberti Gemblacensis Chronographiae Auctarium Affligemense*, Verhandelingen van de Koninklijke Vlaamse academie voor wetenschappen, letteren en schone kunsten van België. Klasse der Letteren, 15 (Brussels, 1952), pp. 32–36 and 87.

²⁴⁷ Jean de Saint-Victor, *Memoriale Historiarum*, ed. by Isabelle Guyot-Bachy, Bibliotheca victorina, 12 (Turnhout, 2000), pp. 530–35 (pp. 530–31): 'Et in computatione annorum ab incarnatione Christi usque ad nos diversitas est inter Dionysii abbatis numerum et numerum Mariani Scoti et quorundam aliorum suam computationem dicentium convenire Euvangelice veritati. Si igitur in hiis maximis et fomisissimis numeris diversificantur magni, multo magis in aliis minoribus numeris debet cogitari posse quaedam contraria repperiri. In hoc autem opusculo numerus ponitur qui tenetur communius vel a pluribus approbatur.'

²⁴⁸ Robert of Hereford, *Excerptio de chronica Mariani*, ed. by Alfred Cordoliani, in *Mélanges offerts à René Crozet*, ed. by P. Gallais and Y.-J. Rion, 2 vols, Cahiers de civilisation médiévale, Supplément (Poitiers, 1966), I, 339–40: 'Quia chronica nova dominicorum annorum diligenter perscrutantis numerum non modica est diffusio et numerorum non leviter enodabilis complexio utile duximus ex ipsius pelagi profunditate exceptiumculas quasdam lectoribus cantative porrigere ut quasi brevi ponte diligenti contextu ratione et columnarum aecclesiasticarum sustentato probabili auctoritate ad irreprehensibilim inquisitare rei veritatem compendiose valeant transmeare.'

Resurrection was to be sought with the aid of both authority and analysis.²⁴⁹ The date of Christ's Passion according to Dionysius (AD 34) did not meet the gospel requirements, and this legitimated a search for the 'real' date of Christ's Resurrection, and that was ultimately found in the Latin tradition (AD 12).²⁵⁰

From Hereford Marianus's chronicle spread to Worcester, where it served as the basis for the *Chronicon ex chronicis* by John of Worcester (d. after 1140).²⁵¹ Following the addition of primarily English material, the chronicle was initially carried forward to 1087. By analogy with Marianus's chronicle, John of Worcester also systematically employed the dual Incarnation reckoning (VA and AD). This *Chronicon ex chronicis* was followed in turn by continuations at Abingdon, Gloucester, Bury St Edmunds, Peterborough, and Durham.²⁵² In addition a shorter

²⁴⁹ Robert of Hereford, *Excerptio de chronica Mariani*, ed. by Cordoliani, p. 340: 'Primum investigandum est ex auctoritate evangelistarum et aliorum doctorum quota feria, quota luna, quotis kalendis passio vel resurrectio contigerit dominica ut hoc computo hunc usque illuc vel illinc usque huc certa computandi ratione secure deducatur. Et quoniam si omnibus inde tractantibus idem esset intellectus et ab omnibus idem voce consona confirmaretur insanum videretur tot et tantis contra in auctoritatibus etiam deviantibus ostendenda est dissensio historicorum et chronographorum ut diversarum et infirmarum repudiatione opinionum una non jam opinio sed scientia rationabiliter comprobatur, probabiliter confirmatur, firmiter teneatur.'

²⁵⁰ Robert of Hereford, 'Excerptio de chronica Mariani', ed. by William H. Stevenson, *English Historical Review*, 22 (1907), 73–74 (p. 74): 'Sed quia auctoritas non patitur euuangelica et aecclesiastica dominum in hoc anno fuisse passum. necesse est in alio passionem querere et annorum dominicorum fideliorum summam inuenire. Vade ergo retro computando ab isto anno usque ad XXIII ubi sunt concurrentes V: et inuenies ibi feriam lunam et kalendam cenae dominicae passionis et resurrectionis. auctoritatibus sacris euuangelistarum. Hieronimi. Augustini et aliorum doctorum per omnia concordare. quia hic est procul dubio annus passionis et resurrectionis dominicae. Et cum annus iste XIII sit magni cicli, oportet incarnationem in fine cicli precedentis requirere, infram ipsum uidelicet ciclum anno XXI. qui ad XIII iuncti: faciunt annos XXXIII. Nunc ergo si annos uerae incarnationis uis inuenire: considera in duobus magnis ciclis qui post incarnationem reuoluti sunt MLXIII annos. Adiectisque annis XXI tantum enim ut ostentum est incarnatio de precedenti ciclo habuit: fiunt anni MLXXXV quibus si XXIII annos qui de presenti ciclo impleti sunt adieceris. fiunt MCVIII anni. in anno presenti qui secundum dionisium pronuntiatur annus MLXXXVIus incarnationis contra quattuor euangelistas ceterosque doctores.'

²⁵¹ The path from Hereford to Worcester presumably went via Oxford, Bodleian Library, MS Auct. F.1.9 (s. XI^{ex}): Patrick McGurk, *The Chronicle of John of Worcester*, vol. III: *The Annals from 1067 to 1140 with the Gloucester Interpolations and the Continuation to 1141*, Oxford Medieval Texts (Oxford, 1998), p. xix, n. 6.

²⁵² Reginald R. Darlington and Patrick McGurk, 'The *Chronicon ex chronicis* of "Florence" of Worcester and its Use of Sources for English History before 1066', in *Proceedings of the Battle Conference 1982*, ed. by Reginald A. Brown, Anglo-Norman Studies, 5 (Woodbridge, 1983), pp. 185–96 (p. 195).

version was produced (*chronicula*).²⁵³ Gervase of Canterbury (d. c. 1210) linked his own chronicle to that of Marianus and in the process used the dual Incarnation reckoning for his first year (AD 1100 = 1122 VA).²⁵⁴ Finally, the twelfth-century annals of Lindisfarne and Durham are important testimonies to Marianus's influence as well.²⁵⁵

²⁵³ McGurk, *Chronicle of John of Worcester*, III, pp. xxi–lviii.

²⁵⁴ Wilhelm Levison and Hans E. Mayer, 'Die Annales Lindisfarnenses et Dunelmenses kritisch untersucht und neu herausgegeben', *Deutsches Archiv für Erforschung des Mittelalters*, 17 (1961), 447–506 (pp. 476–78).

²⁵⁵ Gervase of Canterbury, *Chronica*, ed. by William Stubbs, Rolls Series: Rerum Britannicarum Medii Aevi Scriptores or Chronicles and Memorials of Great Britain and Ireland during the Middle Ages, 73 (London, 1879), pp. 88–91: 'Est et alius inter compotistas et cronicarum scriptores error et dissonantia: nam inter supputationem Dionisii et illam, quae secundum Evangelium esse dicitur, anni reperiuntur xxii. [. . .] Si quis autem annos Domini, qui secundum Evangelium dicuntur esse conscripti, nosse desiderat, supputationi Dionisii, quem imitamur, viginti duos annos apponat. Haec est enim de annis Domini inter Evangelium et praefatum Dionisium dissonantia, sicut in suis cronicis testatur Marianus Scottus, spatium scilicet annorum viginti duorum. [. . .] Anno igitur gratiae secundum Dionisium M C, secundum Evangelium vero M C XXII.'

GERLAND THE COMPUTIST (D. AFTER 1093?)

Biography of an Unknown Scholar

Only a very few facts are known about Gerland's life.¹ For some time the twelfth-century canon Gerland of Besançon (d. after 1148) was thought to be the author of a *De computo*.² Based on a variety of sources, however, Haskins (1924) and De Rijk (1959) showed that a scholaster by the same name was already active in Besançon at the end of the eleventh century.³ The chronicler Alberic of Trois-fontaines (d. after 1252), for example, reported already that in 1084 there was a scholaster by the name of Gerland teaching at Besançon.⁴ Moreover, a number of manuscript versions of Gerland's *De computo* unambiguously list 1081 as the *annus praesens*.⁵ In order to avoid further confusion, this eleventh-century scholaster is referred to in current studies as Gerland the Computist, or Gerlandus Compotista.

¹ Lambertus M. de Rijk, 'The Dialectica of Garland the Computist', in Gerland the Computist, *Dialectica*, ed. by de Rijk, *Wijsgerige teksten en studies*, 3 (Assen, 1959), pp. ix–lxiii (pp. ix–xxii).

² See for example Alfred Cordoliani, 'Notes sur un auteur peu connu: Gerland de Besançon (avant 1100 – après 1148)', *Revue du Moyen Âge latin*, 1 (1945), 411–19, and Alfred Cordoliani, 'Le comput de Gerland de Besançon', *Revue du Moyen Âge latin*, 2 (1946), 309–13.

³ Charles H. Haskins, *Studies in the History of Mediaeval Science* (Cambridge, 1924), p. 85, and de Rijk, 'The Dialectica of Garland the Computist', pp. ix–xlii.

⁴ Alberic of Trois-fontaines, *Chronica*, ed. by Paul Scheffer-Boichorst, *Monumenta Germaniae Historica, Scriptores*, 23 (Hannover, 1986), pp. 631–950 (AD 1084).

⁵ Haskins, *Studies in the History of Mediaeval Science*, p. 85 n. 14, and de Rijk, 'The Dialectica of Garland the Computist', p. xxiv n. 4.

Based on his dialect we know at any rate for certain that Gerland came from Lorraine. Following his studies he travelled to the British Isles sometime after 1038, where he would remain for almost thirty years. He may well have served as scholaster at York during this period. Ultimately he made the crossing to the continent once again, and in 1066 Gerland became *magister scholarum* at Besançon. He remained in this office until 1086 at the latest, for early in that year that office was occupied by a certain Bernardus. Based on the necrology of St Paul's cathedral at Besançon, we also know that up to the time of his death Gerland was prior of the abbey of St Germain in the neighbouring Lanthenans. This abbey was institutionally independent from St Paul's cathedral at Besançon and it is presumably for that reason that Gerland's death on 2 October is noted in the necrology of that cathedral.

Although the majority of Gerland's oeuvre is still unedited, he may with justification be called a scholar of many parts. He wrote both on the many facets of the seven liberal arts and on theological matters. The numerous manuscripts from the first half of the twelfth century testify to the fact that Gerland was even then already considered a significant scholar. As far as the trivium is concerned, Gerland the Computist wrote not just a *De grammatica*, but a lucidly expanded logical tract as well, the *Dialectica*.⁶ Gerland also exhibited particular interest in the quadrivium with studies on the abacus (*De abaco*), astronomy (*Tabulae astronomicae*), and chronology (*De computo*).

Based on his interest in the quadrivium Gerland's schooling has been situated in one of the schools at Liège. De Rijk suspects, moreover, that Gerland's brief musical tracts (*De fistulis* and *De nolis*) were produced in this period at Liège.⁷ We also find indications of his training at Liège in his *Candela*, an as of yet unedited encyclopaedia of theology, liturgy, and canon law. In this work Gerland pays a significant amount of attention to a long, drawn-out controversy on the issue of Christ's real presence. An initial examination reveals similarities in terminology and content with Heriger's tract *Dicta De corpore et sanguine Domini*. A second reference to the school of Liège in this *Candela* is an abstract from the now-lost *De ligno crucis* by Franco of Liège (d. c. 1083).⁸ Thirdly, we find the only extant version of Franco's *De quadratura circuli* in the same manuscript containing Gerland's *De computo*.⁹ Finally, Gerland's

⁶ Gerland the Computist, *Dialectica*, ed. by de Rijk, pp. 1–209.

⁷ De Rijk, 'The Dialectica of Garland the Computist', p. xxix. On these schools of Liège, see Riché, *Écoles et enseignement dans le Haut Moyen Âge*, pp. 165–68.

⁸ Gerland the Computist, *Dialectica*, ch. 17.

⁹ The manuscript in question is Vatican City, Biblioteca apostolica Vaticana, MS lat. 3123, fols 9^r–33^v and 82^v–105^v, respectively (s. XIIⁱⁿ).

De computo itself is a possible indicator for his background at Liège. As had Heriger of Lobbes before him, Gerland, too, chose the Greek tradition with respect to the date of Christ's Passion. And yet there is not a single piece of concrete evidence that Gerland had any knowledge of Heriger's *Epistola ad Hugonem*.

Gerland's Correction of the Christian Era

Introduction

Gerland's *De computo* consists of two parts, and more than thirty manuscripts containing it have come down to us. The most important manuscripts are Oxford, Bodleian Library, MS Digby 56, fols 170^r–195^v (s. XII in); London, British Library, MS Cotton Vespasian A IX, fols 32^v–74^v (s. XII); and Paris, Bibliothèque de l'Arsenal, MS 1116, fols 254^r–264^r (s. XII), although the latter manuscript contains only the first part of Gerland's *Computus*. The first book originally consisted of twenty-seven chapters and was later expanded to thirty-seven. It is striking that these ten supplemental chapters have more to do with astronomy than they do with computistics. Book II is intended as a further supplement and its contents pertain purely to astronomy. At a later stage Gerland's original second part was replaced in many manuscripts by an edited version.

There remains a great deal of uncertainty about the dating of this work. Already in the thirteenth century Roger Bacon (d. 1294) suggested that Gerland had written his *De computo* as early as 1038.¹⁰ This dating is based, however, on the first year of the so-called *Tabula Gerlandi* and thus says nothing about the date of composition of Gerland's *De computo*. Cordoliani fixes the date of composition in 1093.¹¹ But he ignores the testimony of the various manuscripts that give 1081 as the *annus praesens* of their common exemplar.¹² Because these manuscripts all contain the ten supplementary chapters of Book I, however, it would not be illogical to assume that Gerland's Book I was expanded to thirty-seven chapters in the

¹⁰ Roger Bacon, *Computus*, ed. by Robert Steele, Opera hactenus inedita Rogeri Baconi, 6 (Oxford, 1926), pp. 1–198 (p. 190): 'Garlandi vero redarguens compositio. 1038vo. ab Incarnatione Domini facta, sicut ipse dicit in libro suo et sicut ipse posuit in principio tabule sue.'

¹¹ Cordoliani, 'Le comput de Gerland de Besançon', p. 313.

¹² The relevant manuscripts are Paris, Bibliothèque nationale de France, MS lat. 11260, fol. 15^v; Paris, Bibliothèque nationale de France, MS lat. 14069, fol. 21^r; Paris, Bibliothèque nationale de France, MS lat. 15118, fol. 39^r; and Vatican City, BaV, MS lat. 3123, fol. 27^r.

year 1081. Finally, De Rijk suggests the middle of the eleventh century based on the fact that the so-called *Tabula Gerlandi* opens with a nineteen-year cycle for the period 1045–64.¹³ This argument is no more convincing, however, because this choice can be accounted for on straightforward computistical grounds. Gerland began his table with the so-called *positio naturalis*, in which the first nineteen-year cycle functions as the beginning of a nineteen-year lunar cycle and of a twenty-eight-year solar cycle.¹⁴ Moreover, all of the extant manuscripts containing Gerland's *De computo* are dated at the earliest to the beginning of the twelfth century. De Rijk attempts to counter this by positing that there was also a significant difference in time between the redaction of Heleric's *De computo* (before 900) and the earliest preserved *annus praesens* (975), but such a comparative argument has little if any bearing on the actual dating of Gerland's *De computo*.¹⁵

We may thus only with a fairly high degree of certainty posit that 1081 was the terminus ante quem for the first twenty-seven chapters of Gerland's first book. The expansion to thirty-seven chapters presumably took place in 1081. Possibly Gerland wrote his Book II sometime around 1093, given the occurrence of a solar eclipse on 23 September of that same year.

Liber primus: Computus usualis (before 1081)

Prologus

In his prologue Gerland states the immediate impulse for writing his own *De computo*. Namely, that he had ascertained that a number of his contemporaries had refuted the chronological theories of the Venerable Bede.¹⁶ Despite the intriguing

¹³ De Rijk, 'The Dialectica of Garland the Computist', pp. xxv–xxvi.

¹⁴ This is a *positio* we also encounter, for example, in Abbo's *Laterculus posterior*. See Chapter 2, the subsection on '*Laterculus posterior* (Berlin version)' under 'Abbo's Correction of the Christian Era: The Fourth Phase (1004)'.

¹⁵ De Rijk, 'The Dialectica of Garland the Computist', p. xxv.

¹⁶ Gerland the Computist, *De computo*, Prologus libri primi: 'Sepe uolumina domni Bede de scientia computandi replicans. et in eis quedam aliter quam traditio doctorum presentium ostenderet repperiens: dei fretus adiutorio deum inuocans preesse meo studio quae uisa mihi fuerunt utilissima. inde pro captu ingenioli mei deflorauit. et deflorata cum quibusdam aliunde conquisitis in unum conguessi.' We acknowledge with thanks the generosity of Faith Wallis in providing us with a preliminary draft edition in digital form, which we have followed faithfully, with the exception of punctuation and use of capitals. She decided, however, not to continue her edition project. Please

nature of this remark, it is by no means certain who he is referring to here. He may possibly have been referring to Marianus Scottus, who had indeed contested Bede's preference for the Greek tradition in his chronicle. No concrete evidence exists, however, to support such a hypothesis linking Marianus and Gerland.

Gerland wanted to respond to these unjust attacks on Bede and he requested that his reader study his tract in its entirety before arriving at any definitive conclusions.¹⁷ He subsequently emphatically distanced himself from a number of his contemporaries who appeared to agree wholeheartedly with Dionysius Exiguus and Helperic of Auxerre.¹⁸ Contrary to his contemporaries, Gerland built the edifice of his entire *De computo* upon two main pillars, namely the authority of Bede (*auctoritas*) and the natural logic of reason (*ars naturae*). For Gerland both of these pillars formed the foundation upon which to refute both Dionysius and Helperic in a legitimate fashion.¹⁹ Although his argument in favour of Bede's chronological theories did not imply that Dionysius and Helperic had to be refuted on all issues, Gerland clearly positioned himself as their conceptual opponent.²⁰

*Tabula Gerlandi*²¹

See Table 35.

also note the forthcoming edition of Gerland's *De computo* by Alfred Lohr (Freiburg), who already collated thirty-one out of thirty-three manuscripts.

¹⁷ Gerland the Computist, *De computo*, Prologus libri primi: 'Queso itaque si unquam haec compositionis fimbria. haec stili ariditas. haec scientiae gutta ad alicuius intuitum peruenerit: ne statim in morsum liuoris dentes acuat. ne antequam perlegat preiudicet. ne si quid in toto notandum inuenerit pro parte totum ut nonnulli solent uituperet. quandoquidem ut ait quidam non insipientium nichil est ab omni parte beatum.'

¹⁸ Gerland the Computist, *De computo*, Prologus libri primi: 'Non equidem me latet quosdam qui Helpericum legerunt. et tabulam Dionisii uiderunt aliter in quibusdam sentire quam ego.'

¹⁹ Gerland the Computist, *De computo*, Prologus libri primi: 'Sed si quis Bedem perlegerit. et naturalem compotum tenere uoluerit: hic ut arbitror partim auctoritati partim artis naturae adquiescens non indigne feret hic quaedam posita quae uidentur obuiare Dionisio. quaedam autem quae Helperico.'

²⁰ Gerland the Computist, *De computo*, Prologus libri primi: 'Non cum hoc eos censeo per omnia redarguendos.'

²¹ With gratitude to Alfred Lohr (Freiburg), who gave me the permission to reproduce his version of this *Tabula Gerlandi*.

Table 35. Tabula Gerlandi

III non. dec. luna prima.			III non. sep. luna prima.			II non. mar. Eodem anno luna XXaVIIa kal. mai. et XaIXa kal. iun. epactis metentibus.		
Regulares	V	I	VI	II	V	III	VI	III
Epactae	Nulla	XI	emb XXII	III	XIII	emb XXV	VI	emb XVII
IXXXVIII	V I VIIa Fa	II	III B	LXXI ind VI V »«	III VI	VII	I B	VIII III
ILVII	(6) III	(1) V	VI VI	VII B	II	III	III	VIII V B
ILXXVI	V VI B	I	II	III	III B	VI	III VII	I
IXCV	II	III B	V	VI	III VII (7)	I B	III »«	VIII III
ICXIII	V	VI	VII B »«	II	III	VII III	V B	VII
ICXXXIII	I	II	III	VI III B	VI	VII	I	VIII II B
ICLI	III B	V	VI	VII	I B	III	III	V
ICLXXI	V VI	VII B	II	III	III	VII V B »«	VII	I VIa Fa
ICXC	II	III »«	III B	VI	VII	I	II B	III
ICCIX	V	VI	VI VII	I B	III	(4) III	V	VI B
ICCXXVIII	V VII B	II	III	III	V B	VII	I Ia Fa	II
ICCXLVII	III	III B	VI	VII	III I »«	II B	III	V
ICCLXVI	VI »«	VII	I B	III	III	VII V	III VI B	I
ICCLXXXV	II	III	III	VI V B	VII	I Va Fa	II	VIII III B
ICCCIII	III B	VI	VII	I	II B	III	V	VI »«

(columns continue on p. 154)

III non. ian. Eodem anno luna XXVIII kal. mar. contra epactas nisi bissextus fuerit tunc.			IIII non. nou. luna prima.		IIII non. aug. luna prima.		III non. mar. Eodem anno luna XXaVIIIa kal. mai. et IIIa kal. aug. contra epactas lune saltu facto in iulio.			
VII	III	I	IIII	VII	V	I	IIII	II	V	III
XXVIII	VIII	emb XX	I	XII	emb XXIII	IIII	emb XV	XXVI	VII	emb XVIII
IIII	V V	VI B	I	II	III	IIII B	VI	VII	IIII I	LXXII ind. II B »«
(2) VII	I Va Fa	II	VI IIII B	V	VI VI	VII »«	I B	III	IIII	VIII V
II B	V IIII	(3) V »«	VI	VII B	II	III	IIII IIII	VI V B	IIII VII	I Va Fa
V	VI B	I	II	III	IIII B	VI	VII	I	II B	VIII IIII
I IIa Fa	II	IIII B	VI V	III VI	VI VII	I B	IIII III	IIII	V »«	VI B
IIII	V	VI	VII B	II	III »«	IIII	IIII V B	VII	I VIIa Fa	II
VI B	I »«	II	VI IIII	IIII B	VI	VII	I	II B	IIII	V
II	V IIII B	V	VI	VII	I B	III	IIII	VI V	IIII VI B	I
V	VI	VII B	II	III	IIII	VI V B	VII	I IIIIa Fa	II	VIII IIII B
I	II	III	VI IIII B	VI »«	VII	I	IIII II B	IIII	V	VI
IIII B »«	V	VI	VII	I B	III	IIII	IIII V	VI B	I	II
V VI	VII B	II	III	IIII	V B	VII	I VIa Fa	II	IIII B	V
II	III	IIII B	VI	VII	VI I	II B	IIII »«	V	IIII VI	VII B
V	VI	VII	I B »«	III	IIII	V	VI B	I	II	III
VII B	II	III	VI IIII	V B	VII	I IIIIa Fa	II	IIII B	V	VI

(columns continue on p. 155)

(columns continued from p. 152)

ICCCXXXIII	V VII	I B	III	III »	V	VI B	I	II
ICCCXLII	III	III	V B	VII	I VIIa Fa	II	III B	V
ICCCCLXI	VI	VII	I	II B	III	V	III VI	(8) VII B
ICCCLXXX	I B	III	III	V	III VI B	I	II »	III
ICCCXCIX	III	V V B	VII »	I IIIa Fa	II	VII III B	V	VI
ICCCXCVIII	VII	I	II B	III	V	VI	VII B	II
ICCCXXXVII	III	III	V	VI B	I	II	III	VIII III B
ICCCCLVI	V B	VII	I Ia Fa	II	III B	V »	VI	VII
ICCCCLXXV	I	II B »	III	V	VI	VII B	II	III
ICCCXCIII	III	V	VI B	I	II	III	III B	VI
IDXIII	VII	I IIIa Fa	II	III B	V	VI	VII	I B
IDXXXII	II B	III	V	VI	VII B »	II	III	III
IDL I	V »	VI B	I	II	III	VII III B	VI	VII
	TER Kal. Feb. I. X	MI XII kal. Feb. I. X	NI V id. Feb. I. X	SEP III kal. Feb. I. X	TU XV kal. Feb. I. X	A VIII id. Feb. I. X	GE VII kal. Feb. I. X	SI XVI kal. Mar. I. X
	T Non. Apr I. XIII	E VIII kal. Apr.	R Id. Apr.	M III non. Apr.	I XI kal. Apr.	N III id. Apr.	I III kal. Apr.	P XIII kal. mai.
	TER III non. Feb. I. XI	MI XI kal. Feb. I. XI	NI III id. Feb. I. XI	SEP III kal. Feb. I. XI	TU XIII kal. Feb. I. XI	A VII id. Feb. I. XI	GE VI kal. Feb. I. XI	SI XV kal. Mar. I. XI
	SEPT VI	IMA III	NE A VII	PRI V	MA III	DOMI VI	NICA V	NATA VII

(1) secundum Dionisium incarnatio; (2) secundum Theophilum incarnatio; (3) eclipsis solis ix kal. oct.; (4) incarnatio
(8) primus annus saeculi secundum quosdam

(columns continued from p. 153)

III	V III B	VI	VII	I	II B	IIII	V	VI	IIII VII B	II »«
VI	VII	I B	III	IIII	V	VI B »«	I	II	III	VIII III B
II	III	IIII »«	VI V B	VII	I VIIa Fa	II	IIII III B	V	VI	VII
IIII B	VI	VII	I	II B	IIII	V	VI	VII B	II	III
VII	I B	III	IIII	V	VI VI B	I	II	III	IIII B »«	VI
III	IIII	VIII V B	VII	I IIa Fa	II »«	III B	V	VI	VII	I B
VI	VII »«	I	VI II B	IIII	V	VI	VII B	II	III	IIII
I B	III	IIII	V	VI B	I	II	III	VII III B	VI	VII
IIII	V V B	VII	I VIa Fa	II	III B	V	VI	VII »«	I B	III
VII	I	II B	IIII	V »«	VI	VII B	II	III	IIII	VIII V B
III »«	IIII	V	VI B	I	II	III	IIII III B	VI	VII	I
V B	VII	I IIa Fa	II	III B	V	VI	VII	I B	III	IIII
I	II B	IIII	V	VI	VII B	II	III »«	(5) IIII	V B	VII
MA III non. Feb. l. X	LES X kal. Feb. l. X	SI III id. Feb. l. X	NE II kal. Feb. l. X	B XIII kal. Feb. l. X	IS VI id. Feb. l. X	S V kal. Feb. l. X	E XVI kab. Feb. l. X	X Non. Feb. l. X	T VIII kal. Feb. l. X	O Id. Feb. l. X
A VII id. Apr.	S VI kal. Apr.	C XVII kal. mai.	H II non. Apr.	A IX kal. Apr.	L II id. Apr.	E kal. Apr.	S XII kal. Apr.	V id. Apr.	IIII kal. Apr.	XV kla. mai.
MA II non. Frb. l. XI	LES IX kal. Feb. l. XI	IN II id. Feb. l. XI	BIS Kal. Feb. l. XI	SEX XII kal. Feb. l. XI	TI V id. Feb. l. XI	LI IIII kal. Feb. l. XI	A XV kal. Feb. l. XI	N VIII id. Feb. l. XI	N VII kal. Feb. l. XI	O XVI kal. Mar. l. XI
LIUM VI	DIE IIII	RUM VII	USQU V	E ad IIII	SEP VII	TUA V	GE III	SI VI	MA V	VII

secundum quosdam; (5) incarnatio secundum quosdam; (6) hic incipit *Tabula Dionisii*; (7) passio secundum Theophilum;

Expositio tabulae (c.1)

Chapter 1 comprises the theoretical foundation for Gerland's 532-year table of concurrents, or the *Tabula Gerlandi*.²² Early on Gerland explains its structure and its contents. Gerland points out the luni-solar character of his 532-year table as the product of nineteen concurrent cycles and twenty-eight epact cycles.²³ At the bottom there are four extra rows. The first three comprise the septuagesimal terms in a non-leap year, the paschal terms, and the septuagesimal terms in a leap year, respectively.²⁴ In the last row Gerland gives the number of weeks that have passed since the first Sunday after the Birth of Christ (25 December). He had already noted the few exceptions to this in each of the relevant years.²⁵ Subsequently Gerland notes among other things the presence of an Incarnation era (1038–1569).²⁶ Finally, he makes note of two further indications in the table itself. At the beginning of a new twenty-eight-year cycle of concurrents Gerland gives the day

²² Gerland the Computist, *De computo*, 1:1: 'Superioris igitur pagine ratio haec est.' The only manuscript correctly inserting the *Tabula Gerlandi* between the prologue and Chapter 1 is Montpellier, Bibliothèque interuniversitaire, MS Section Médecine 322 (s. XII). In other manuscripts this *Tabula Gerlandi* is found hereafter or not at all.

²³ Gerland the Computist, *De computo*, 1:1: 'Multiplicatis igitur uel latitudine per longitudinem. uel longitudine per latitudinem. tota summa excrescit in quingentos XXXos II annos. Vigies enim octies XIX aut decies IXes XXti VIIIto. sunt DXXXII. Nec unquam ad idem initium possunt concordare cycli epactarum et concurrentium nisi cycli epactarum XXes VIIIes. et cycli concurrentium XIXes infra contineatur. Vnde et concurrentes XIXes comprehensae totam paginam perficiunt. habentes semper inicio capitale figuram I et supra se epactas cum embolismis notatas XXes VIIIes secundum interualla linearum inceptas ante quam pagina finiatur.'

²⁴ Gerland the Computist, *De computo*, 1:1: 'Subtus uero prius distincti sunt termini septuagesimales sine bissexto. deinde paschales. postea autem bissextiles termini septuagesimae. qui semper una die tardius contingunt. quam non bissextiles.' A septuagesimal term falls precisely nine weeks before the paschal term (luna xiv) in the same year. In a non-leap year, the septuagesimal term falls, for example, consistently on luna x, namely at the earliest on 18 January and at the latest on 14 February. In a leap year the septuagesimal term falls logically one day later (luna xi), namely at the earliest on 19 January and at the latest on 15 February.

²⁵ Gerland the Computist, *De computo*, 1:1: 'Postremo adiuncte sunt septimane quot sint a prima dominica post diem natiuitatis aut ab ipsa natiuitate si in dominica die occurrat usque ad septuagesimam. exceptis paucis quae in pagina minio notate continentur.'

²⁶ Gerland the Computist, *De computo*, 1:1: 'Altrinsecus uero in latere dextro est numerus annorum domini. in sinistro uero regulares ad feriam kalendarum inueniendam et lunam.' In the Oxford manuscript this column was switched from the right to the left side.

of the week on which the reported septuagesimal term occurs (e.g. the year 1038).²⁷ Moreover, he systematically marks the beginning of each new fifteen-year indiction cycle (e.g. the year 1041).²⁸

In the end Gerland failed to provide one important piece of information in this *Expositio tabulae*. He gives no explanation whatsoever for the fact that the Incarnation era he employs does not coincide with the Dionysian era (AD). From what follows in Book I it will become clear that in his *Tabula Gerlandi* Gerland quite consciously made use of a corrected era of his own making (VA). The eight years he highlights are also accounted for only at the end of his Book I.

Quid diversi senserint de passionis et resurrectionis die (c.24)

Following a systematic discussion of the nature of leap years, concurrents, regulars, embolismic years, *saltus lunae*, indictions, equinoxes, and solstices, in Chapter 24 of Book I Gerland takes up the chronological problem of Christ's Passion and Resurrection. He hoped, after all, for divine assistance in finding the paschal term of the date of Christ's Passion.²⁹ In this chapter Gerland wanted to provide an overview of all existing theories so that his reader might compare them to one another.³⁰ Gerland first quotes two extended passages from Bede's *De temporum ratione*. In the first the date of Christ's Birth is equated with 533 (=AD 1) and the date of Christ's Passion with 566 (=AD 34); in the second passage Gerland focuses on Bede's respectful reference to the Greek tradition of pseudo-Theophilus of Caesarea.³¹

Following these extended borrowings from Bede Gerland concludes that the controversy over Christ's Passion was concentrated between the Latin tradition of Dionysius (25 March) on the one hand and the Greek tradition of pseudo-

²⁷ Gerland the Computist, *De computo*, 1:1: 'In medio autem noscuntur feriae terminorum cum paucis septimanis quas supra diximus.'

²⁸ Gerland the Computist, *De computo*, 1:1: 'Concurrentes in minio sedentes initium sunt indictionum.'

²⁹ Gerland the Computist, *De computo*, 1:24: 'Si de fine eius qui finem non habet disputantes eius finis terminum inuenire potuerimus: nostrum opusculum diuino predictum munere haud dubitamus.'

³⁰ Gerland the Computist, *De computo*, 1:24: 'Vnde quia ualde diuersorum sententiae discordant colligenda est ipsa controuersia ut lector cui potissimum faueat iudicio inexpugnabili reperiat.'

³¹ See also Beda Venerabilis, *De temporum ratione liber*, ch. 47 and ch. 61.

Theophilus (23 March) on the other.³² It is striking that here Dionysius Exiguus, and not Jerome or Augustine, is named as the proponent of the Latin tradition, although Easter Sunday in AD 34 (28 March, luna xxi) went against the Latin tradition both in terms of lunar and solar parameters (27 March, luna xvii).

In Gerland's view, the lunar data pertaining to Christ's Passion, based as they were on the Gospels, were incontrovertible.³³ Consequently a rational analysis of both traditions should result in a solution to this controversy.³⁴ Such an analysis could not, however, run counter to the Faith.³⁵ Gerland opted personally for the Greek tradition of pseudo-Theophilus, and he justified this decision based on a threefold argument of *autoritas*: (1) Pope Victor I (d. 199) confirmed the Easter calculation of Theophilus of Caesarea (d. after 180); (2) Theophilus was both chronologically and geographically more proximate to the apostles than Dionysius; and (3) according to an authoritative author, that is, Theophilus of Caesarea, Christ died on Friday 23 March.³⁶ Gerland produced his first reference from the authoritative *Liber pontificalis*.³⁷ However, he confused Theophilus of Caesarea with Theophilus of Alexandria, which immediately reveals that this is an interpolation

³² Gerland the Computist, *De computo*, 1:24: 'Vt ergo breuiter controuersia de passione et resurrectione domini comprehendatur, Dionisius et quidam alii saluatorem nostrum passum esse VIIIo kl. aprilis existimauerunt, Theophilus autem X kl. aprilis intellexit.'

³³ Gerland the Computist, *De computo*, 1:24: 'Nam in hoc nullus dissentire potuit. quin luna XV in passione fuisset. et in resurrectione XVII sequeretur.'

³⁴ Gerland the Computist, *De computo*, 1:24: 'Harum duarum sententiarum tam opposita fronte pugnantium diligens lector quam sibi eligat: ratione inuiolabili inuestiget.'

³⁵ Gerland the Computist, *De computo*, 1:24: 'Quod si forte mea opus sit sententia. Queso ne temere irrideatur. quandoquidem contra fidem ut arbitror esse non conuincetur.'

³⁶ Gerland the Computist, *De computo*, 1:24: 'Mea igitur Theophilo accedit sententia tum quia auctoritate Victoris pape confirmatum fuit debere teneri pascha sicut ipse perscripserat. tum quia uicinus fuit apostolicorum temporum. tum denique quia in passione domini sine cunctatione luna poterit inueniri XV ut auctoritas clamat si dominus noster XI kl. aprilis a iudeis tentus Vta feria et in crastina die secundum eum fuerit crucifixus.'

³⁷ *Liber pontificalis*, ed. by Theodor Mommsen, Monumenta Germaniae Historica, Gesta pontificum romanorum, 1 (Berlin, 1898), p. 19: 'Hic fecit constitutum ad interrogatione sacerdotum de circulo paschae ut dominico paschae, cum presbiteris et episcopis factam conlationem et accessito Theophilo episcopo Alexandriae facta congregatione, ut a XIII luna primi mensis usque ad XXI die dominicum custodiatur sanctum pascha.'

in the *Liber pontificalis*.³⁸ The second reference was drawn almost verbatim from Bede's *De temporum ratione*.³⁹

As a second argument in favour of the Greek tradition Gerland posited that Good Friday in the year of Christ's Passion had not, according to Dionysius (AD 34), fallen on luna xv.⁴⁰ He once again quotes Bede, who had indeed already sown doubt about the correctness of this reckoning with his ironic remark.⁴¹ This argument does nothing, however, to refute the Latin tradition and just as little to reinforce the Greek tradition.

Gerland continues his offensive against Dionysius with a third argument that he again borrows from Bede's *De temporum ratione*. In that work Bede had referred to three different traditions concerning the Resurrection of Christ (25 March, 27 March, and 28 March).⁴² Gerland places great emphasis especially on the

³⁸ It is possible that no one less than Dionysius Exiguus himself was responsible for this interpolation in the *Liber pontificalis*: Bruno Krusch, 'Die Einführung des griechischen Paschalritus im Abendlande', *Neues Archiv der Gesellschaft für ältere deutsche Geschichtskunde zur Beförderung einer Gesamtausgabe der Quellschriften deutscher Geschichten des Mittelalters*, 9 (1884), 99–169 (p. 110). This would then have the ironic result that Dionysius himself was partly responsible for Gerland's chronological correction of the Dionysian era.

³⁹ Beda Venerabilis, *De temporum ratione liber*, ch. 47.

⁴⁰ Gerland the Computist, *De computo*, 1:24: 'Nam secundum Dionisium et fautores eius nullatenus in passione domini luna poterit XV inueniri si ut ipse uoluit secundus annus sui circuli fuerit ille in quo dominus incarnari dignatus est habens scilicet XI epactas et concurrentes V. quando constat dominum inter nos conuersatum esse XXXtaIIIbus annis. et paulo plus.'

⁴¹ Gerland the Computist, *De computo*, 1:24: 'Denique uenerabilis Bede cuius fere uerba per totum hoc opusculum dispersimus aperte non dissimulanti intelligere insinuat. cuius sententia preponderet Theophilina uidelicet an diuersorum. Vt quid enim hanc orationem poneret: "Et ideo apertis beati Dionisii circulis. si DLXsextum ab incarnatione domini contingens. annum XIII lunam in eo IXo kl. aprilis Va feria reperiis. et diem pasche dominicum VIto kl. aprilis luna XVII. age deo gratias" nisi quia plane intellexit non posse inuenire: secundum Dionisium et fautores eius? Vt quid paulo etiam post subiunxit: "Sin uero annum qualem querebas in loco quem putabas inuenire non poteris. uel cronographorum incurie. uel tue potius tarditati culpam ascribe." nisi quia animaduertebat tempora non sincere computasse Dionisium et fautores eius?'

⁴² Gerland the Computist, *De computo*, 1:24: 'Postremo ualde uidetur Bede uenerabilis obuiare Dionisio et fautoribus eius in LXIo capitulo. Dicit enim: "Vbi autem primum dominicus resurrectionis Christi dies fuerit uarie refertur. et quidem ut supra memorauimus quidam VIIIo kalendarum Aprilium fuisse. sed alii VIo nonnulli Vto kalendarum earundem die fuisse asseuerant Vbi notandum quod si VIIIo kalendarum memoratarum ut antiquiores scribere resurrectio domini facta est Vus profecto circuli XIXlis tunc agebatur annus. habens concurrentes VII et lunam XIII sicut semper XI kalendarum Aprilium. Si autem VI kl. aprilis surrexit dominus XIIIus circuli prefati

passage in which Bede almost explicitly indicates AD 12 as the year of Christ's Passion according to the Latin tradition.⁴³ He interprets this passage, however, in an entirely different way. Gerland posits that choosing the Latin tradition necessarily implies that Christ had died either at a very young age (AD 12) or at an impossibly advanced age (AD 259).⁴⁴ It is striking that Gerland here refuses to reconsider the date of Christ's Birth.

In his fourth and final argument he represents Dionysius in a clearly inferior light with respect to Bede's *auctoritas*, given the fact that the latter had expressed a tentative preference for the Greek tradition.⁴⁵ Based on these four arguments, Gerland concludes that the Dionysian Latin tradition had been sufficiently disproved and that the reader must of necessity choose the only viable alternative,

annus extitit. V habens concurrentes et lunam XIII ut semper IX kl. aprilis. Porro si Vo kalendarum supradictarum resurrectio celebrata est Christi secundus circuli XIXlis existens annus concurrentes habeat IIIor et lunam XIII sicut semper VIIIo kalendarum Aprilium. Quae cuncta XVII lunae in qua dominico die primo sacro resurrectionis sunt acta misteria cursu panduntur indubio. Tantum diligentissime cauendum est. ne hanc XVI luna ut quidam uoluerunt confirmando non solum ineuitabile nostre calculationis dispendium. sed et grauissimum catholice fidei incurramus periculum.” See also Beda Venerabilis, *De temporum ratione liber*, ch. 61.

⁴³ Gerland the Computist, *De computo*, 1:24: ‘Quid itaque significant hec uerba Bede: “si autem VIo kl. aprilis dominus surrexit XIII prefati circuli annus extitit V habens concurrentes?”’

⁴⁴ Gerland the Computist, *De computo*, 1:24: ‘Nonne hoc plane datur intelligi quia si ut Dionysius uoluit secundo anno sui circuli dominus incarnatus fuerit epactis XI existentibus. et VIIIo kl. aprilis passus: necesse fuit eum citra tredecim annos uixisse uel ultra CCL quandoquidem XIIIus annus circuli XIXlis habens V concurrentes aut XIIus est a secundo anno eiusdem tabule Dionisii. aut CCLIXus proxime post illum?’

⁴⁵ Gerland the Computist, *De computo*, 1:24: ‘Quod ut facilius lector agnoscat. non pigeat nos ipsam tabulam Dionisii subiungere. si tamen prius ostenderimus discretissimum Bedem Theophili sententiam approbare ut secundum eiusdem tabule dispositionem perspicax inquisitor quid inde iudicet reperiat. Inquit uenerabilis Bede in LXo VIo capitulo ubi opera Dei disponit in prima etate seculi nascentis: “Sexta die Deus animalia terrestria et ipsum hominem Adam formauit. de cuius latere dormientis matrem omnium uiuentium produxit Euam que nunc quantum mihi uidetur esse credibile Xa kalendarum Aprilium dies appellatur. Vnde merito creditur si non uerior sententia uincit. quam beatus Theophilus cum ceteris non solum Palestine sed et permultis aliarum regionum episcopis de pascha disputans scripsit. eodem Xo kalendarum Aprilium die dominum fuisse crucifixum. Decebat enim una eademque non solum ebdomadis sed et mensis die secundum Adam pro salute generis humane uiuifica morte sopitum de productis e latere suo sacramentis celestibus sponsam sibi sanctificare ecclesiam qua uidelicet die primum Adam patrem uidelicet humani generis ipse creauerat. eique costam de latere tollens edificauit mulierem. cuius adiutorio genus propagaret humanum.”’

namely the Greek tradition of pseudo-Theophilus.⁴⁶ In the process he interprets the phrase in question, ‘si non uerior sententia vincit’, not as a careful but rather approbative formulation on Bede’s part. This *si*-clause was after all written in the indicative mood, and in Gerland’s view this made it clear that Bede himself did not doubt the objective truth of the clause.⁴⁷ In further support of his claim he referred to similar examples, namely from the authoritative *Institutiones grammaticae* by the important grammarian Priscian (d. after 512) and from the *Aeneid* of Virgil (d. 19 BC).⁴⁸ With this grammatical argument, Gerland ends his apology for the Greek tradition in opposition to the Latin tradition.

Tabula Dionisii (c.25)

See Table 36.

Utrum luna secundum Dionisium XIIIa in cena Domini possit inveniri (c.26)

By analogy with the first chapter, Chapter 26 constitutes a commentary on the contents of the so-called *Tabula Dionisii*, a 532-year table of paschal regulars, that is, a number that must be added to the concurrent in order to discern the day of the week for the paschal term. Given the title of the chapter it is clear that Gerland wanted to check whether the paschal term for AD 34 coincided with Christ’s Last Supper. It is striking that he did not begin his research into this question from within the Greek tradition, but did so rather from the Latin tradition. He concludes that the Dionysian paschal term for the date of Christ’s Passion (21 March) did not coincide with the requisite paschal term according to the Latin tradition (24 March) and relies on Bede to fix the date of Christ’s Passion in AD 12 or AD 259 according

⁴⁶ Gerland the Computist, *De computo*, 1:24: ‘Quid igitur? Quandoquidem sic repugnant sententiae ut si alteri adquiescamus alterius incurrere offensam necesse sit uter probandus est. Vtrumne Theophilus Dionisio. an iste illi propendus est. Mea quidem sententia Dionisio Theophilus propter supradictas rationes.’

⁴⁷ Gerland the Computist, *De computo*, 1:24: ‘Nec in hoc aliquis hereat quod dictum est “si non uerior sententia uincit”: quasi hoc dubitatie intelligatur.’

⁴⁸ Gerland the Computist, *De computo*, 1:24: ‘Non enim expers secte gramatice fuit Bede. sciens quod causales coniunctiones quando approbatiuae sunt indicatiuo modo coniunguntur ut ait Priscianus in constructione. Hanc itaque coniunctionem quae et si. approbatiuam posuit. cum indicatiuo modo coniunctam. in hac oratione si non uerior sententia uincit. Vt Virgilius ait: “Dii si qua est celo pietas quae talia curat.”’ See also Priscian, *Institutiones grammaticae*, ed. by Axel Schönberger, Bibliotheca Romana et Latina, 5 (Frankfurt am Main, 2008), 16:6, and Publius Maro Virgil, *Aeneis*, ed. by Nicholas Horsfall, Mnemosyne Supplements, 299 (Leiden, 2008), 2:536.

Table 36. Tabula Dionisii

V	I	VI	II	V	III	VI	IIII	VII	III	I
III;	V*	VI	VII	II;	III	IV	V	VII;	I	II
VI	I;	II	III	IIII	VI;	VII	I	II	IIII;	V
II	III	V;	VI	VII	I	III;	IIII	V	VI	I;
V	VI	VII	II;	III	IIII	V	VII;	I	II	III
I;	II	III	IIII	VI;	VII	I	II	IIII;	V	VI
III	V;	VI	VII	I	III;	IIII	V	VI	I;	II
VI	VII	II;	III	IIII	V	VII;	I	II	III	V;
II	III	IIII	VI;	VII	I	II	IIII;	V	VI	VII
V;	VI	VII	I	III;	IIII	V	VI	I;	II	III
VII	II;	III	IIII	V	VII;	I	II	III	V;	VI
III	IIII	VI;	VII	I	II	IIII;	V	VI	VII	II;
VI	VII	I	III;	IIII	V	VI	I;	II	III	IIII
II;	III	IIII	V	VII;	I	II	III	V;	VI	VII
IIII	VI;	VII	I	II	IIII;	V	VI	VII	II;	III
VII	I	III;	IIII	V	VI	I;	II	III	IIII	VI;
III	IIII	V	VII;	I	II	III	V;	VI	VII	I
VI;	VII	I	II	III;	V	VI	VII	II;	III	IIII
I	III;	IIII	V	VI	I;	II	III	IIII	VI;	VII
IIII	V	VII;	I	II	III	V;	VI	VII	I	III;
VII	I	II	III;	V	VI	VII	II;	III	IIII	V
III;	IIII	V	VI	I;	II	III	IIII	VI;	VII	I
V	VII;	I	II	III	V;	VI	VII	I	III;	IIII
I	II	IIII;	V	VI	VII	II;	III	IIII	V	VII;
IIII	V	VI	I;	II	III	IIII	VI;	VII	I	II
VII;	I	II	III	V;	VI	VII	I	III;	IIII	V
II	IIII;	V	VI	VII	II;	III	IIII	V	VII;	I
V	VI	I;	II	III	IIII	VI;	VII	I	II	IIII;
I	II	III	V;	VI	VII	I	III;	IIII	V	VI
Nulla	XI	XXII	III	XIIII	XXV	VI	XVII	XXVIII	IX	XX
non. apr.	VIII kal. apr.	id. aprilis	IIII non. apr.	XI kal. apr.	IIII id. apr.	II kal. apr.	XIIII kal. mai.	VII id. apr.	VI kal. apr.	XVIII kal. mai.

III	VII	V	I	III	II	V	III	
III	V;	VI	VII	I	III;	III	V	ILXXXII
VI	VII	II;	III	III	V	VII;	I	ICI
II	III	III	VI;	VII	I	II	III;	ICXX
V;	VI	VII	I	III;	III	V	VI	ICXXXIX
VII	II;	III	III	V	VII;	I	II	ICLVIII
III	III	VI;	VII	I	II	III;	V	ICLXXVII
VI	VII	I	III;	III	V	VI	I;	ICXCVI
II;	III	III	V	VII;	I	II	III	ICCXV
III	VI;	VII	I	II	III;	V	VI	ICCCXXIII
VII	I	III;	III	V	VI	I;	II	ICCLIII
III	III	V	VII;	I	II	III	V;	ICCLXXII
VI;	VII	I	II	III;	V	VI	VII	ICCXCI
I	III;	III	V	VI	I;	II	III	ICCCX
III	V	VII;	II	II	III	V;	VI	ICCCXXIX
VII	I	II	III;	V	VI	VII	II;	ICCCXLVIII
III;	III	V	VI	I;	II	III	III	ICCCXLVII
V	VII;	I	II	III	V;	VI	VII	ICCCLXXXVI
I	II	III;	V	VI	VII	II;	III	ICCCCV
III	V	VI	I;	II	III	III	VI;	ICCCXXIII
VII;	I	II	III	V;	VI	VII	I	ICCCXLIII
II	III;	V	VI	VII	II;	III	III	ICCCCLXII
V	VI	I;	II	III	III	VI;	VII	ICCCLXXI
I	II	III	V;	VI	VII	I	III;	ID
III;	V	VI	VII	II;	III	III	V	IDXIX
VI	I;	II	III	III	VI;	VII	I	IDXXXVIII
II	III	V;	VI	VII	I	III;	III	IDLVII
V	VI	VII	II;	III	III	V	VI	IDLXXVI
I;	II	III	III	VI;	VII	I	II	IDXCV
I	XII	XXII	III	XV	XXVI	VII	XVIII	Epacta
II non. apr.	IX kal. apr.	II id. apr.	kal. apr.	XII kal. apr.	V id. apr.	III kal. apr.	XV kal. mai.	Termini paschales

to that same Latin tradition.⁴⁹ Gerland once again refers to the impossibility of Christ having died at either such a young age or at such an extremely advanced age.⁵⁰

According to Gerland, the problem of the impossibly young age of Christ did not arise in the Greek tradition of pseudo-Theophilus.⁵¹ As further support for this claim he referred to the (corrected) era that he had already employed in his 532-year table of concurrents. Contrary to the *Tabula Dionisii*, the *Tabula Gerlandi* did indeed begin with the so-called *positio naturalis* of the concurrents. In concrete terms this meant that the first year (1038 VA) was at the same time the first year of a nineteen-year lunar cycle (1/19), a twenty-eight-year solar cycle (1/28), and a 532-year luni-solar cycle (1/532). According to this reasoning, the Annunciation of Christ to Mary fell in the final year of a twenty-eight-year solar concurrent cycle (28/28) and in the ninth year of a nineteen-year lunar cycle (9/19).⁵²

A second consequence of this *positio naturalis* was that the actual beginning of a 532-year Dionysian cycle shifted to the first year of the second nineteen-year

⁴⁹ Gerland the Computist, *De computo*, 1:26: 'Lector igitur agnoscat in superiori pagina. an si eius initium ut uoluit Dionisius ab incarnatione domini annus fuit DusXXXus IIus. secundus uero eiusdem circuli annus ipse in ordine DusXXXusIIIus ab incarnatione idem fuit. in quo secundum Dionisium incarnari dignatus est dominus. habens epactas XI et concurrentes V lunam post XXXIII annos et aliquantulum plus tantum enim dominum inter nos conuersatum esse constat poterit inuestigare XIIIam IXo kl. aprilis referens Deo gratias si inuenerit ut ait Bede animaduertens eam non posse inueniri totam in eodem termino. nisi esset XIIIus annus circuli decennouenalis habens epactas XIIcim et concurrentes uero Vque qui quotus distet a secundo eiusdem circuli XIXlis anno. in quo secundum Dionisium incarnatio facta est euidenter apparet. XII namque est ab eo proxime. deinceps ultra CCL annos porrigitur.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 61.

⁵⁰ Gerland the Computist, *De computo*, 1:26: 'Absit a cordibus fidelium uel dominum inter nos tam parum in carne fuisse. uel tam diu. uel potius lunam in eius cena XIIIImam non posse inueniri.'

⁵¹ Gerland the Computist, *De computo*, 1:26: 'Hanc omnem euitare poterimus calumpniam. si sequentes auctoritatem beati Theophili redemptorem nostrum XI kl. aprilis luna XIIIIma a iudeis tentum. Xo kl. aprilis luna XV crucifixum. VIIIo kl. aprilis a mortuis resurrexisse luna XVII non diffiteamur. ut et XIII epacta tunc extitisse credatur. et concurrens VII.'

⁵² Gerland the Computist, *De computo*, 1:26: 'et si annos ab incarnatione domini teneamus quemadmodum eos tabulae nostre annotuamus que operis huius caput est et principium. et que penitus eadem est cum tabula dionisii. si uel concurrentium positio naturalis sue attribuitur. uel nostrae dematur. et si anni in nostra ut in sua aut in sua ut in nostra ordinentur. et secundum quam id est nostram annuntiatus fuit dominus noster XXoVIIIo anno concurrentium. qui et ultimus circuli solaris est habens concurrentem VII. nonus uero est circuli epactarum. habens epactam XXVIIIto. et cuius id est nostre initium fuit incipiente millesimo XXXoVIIIo anno ab incarnatione domini sicut ibi notatum est'. This luni-solar combination is found in the twenty-eighth year of the *Tabula Gerlandi* (28/532) and according to the corrected reckoning of Gerland, the year corresponds with 1065 VA (= 1 VA).

cycle in this *Tabula Gerlandi* (AD 1064 = 1057 VA). In other words, he points out that the Dionysian AD 532 is replaced by 525 VA.⁵³ In this way Gerland provides for the first time an explicit explanation for his chronological correction of seven years with respect to the Dionysian era. The date of the Passion of Christ (AD 42) shifted to 35 VA, and the date of Christ's Birth (AD 8) logically became 1 VA. Only armed with this theoretical explanation are we able to comprehend fully the indications in the so-called *Tabula Gerlandi*.

Table 37

<i>x</i> / 532 ~ Gerland	AM / VA		AD	<i>x</i> / 532 ~ Dionysius
331/532	AM 1	° World ~ some ⁵⁴	-	312/532
530/532	-30 VA	° Christ ~ Latin tradition († = 27/3) ⁵⁵	23 BC	511/532
21/532	-7 VA	° Christ ~ Dionysius ⁵⁶	AD 1	2/532
28/532	1 VA	° Christ ~ Greek tradition († = 25/3) ⁵⁷	AD 8	9/532
62/532	35 VA	† Christ ~ Greek tradition	AD 42	43/532
177/532	150 VA	° Christ ~ some († = 28/3) ⁵⁸	AD 157	158/532
49/532	1086 VA	Solar eclipse (23/9)	AD 1093	30/532

Appendices (1081)

It was presumably in 1081 that Gerland expanded his first book with ten extra chapters. In the so-called appendix H ('si XXIII anni addantur [...]') Gerland provided a brief explanation of the Latin tradition. He calculates there that one should add

⁵³ Gerland the Computist, *De computo*, 1:26: 'In quo perspicui potest tabulam Dionisii initium cuius secunda est linea nostre non incepisse DXXXoIlo anno ab incarnatione domini completo ut ipse uoluit. sed incipiente DoXXoVo.'

⁵⁴ Gerland the Computist, *De computo*, Tabula Gerlandi: 'Primus annus saeculi secundum quosdam.' The concurrent for this year is 7. The paschal term falls on 18 April (luna xiv), which implies that the previous full moon fell on 19 March. According to this interpretation, the illumination of the heavenly bodies fell on the evening of 18 March.

⁵⁵ Gerland the Computist, *De computo*, Tabula Gerlandi: 'Incarnatio secundum quosdam.' The calculation is as follows: 13/532 + 532 = 545/532 - 34 = 511/532 (=23 BC).

⁵⁶ Gerland the Computist, *De computo*, Tabula Gerlandi: 'Secundum Dionisium incarnatio.'

⁵⁷ Gerland the Computist, *De computo*, Tabula Gerlandi: 'Secundum Theophilum incarnatio.' The calculation is as follows: 43/532 - 34 = 9/532 (=AD 8).

⁵⁸ Gerland the Computist, *De computo*, Tabula Gerlandi: 'Incarnatio secundum quosdam.' The calculation is as follows: 192/532 - 34 = 158/532 (=AD 157).

twenty-three years to the Dionysian era in order to arrive at the date of Christ's Passion according to the Latin tradition (i.e. from AD 1 to 23 BC).⁵⁹ In the Greek tradition the discrepancy increased to exactly thirty years (i.e. from AD 8 to 23 BC).⁶⁰

Liber secundus: Computus naturalis (after 1093)

Book II of this *Computus* offers nothing new concerning the chronological correction developed by Gerland in his first book (AD 532 = 525 VA). And yet its very existence is interesting in its own right because Gerland considered this second part (*computus naturalis*) to be a fully fledged alternative for his first part (*computus usualis*). From the prologue of this second part it is abundantly clear that Gerland wished to take the matter a step further. Not only would he revisit themes treated in the first part, but he would also investigate as of yet unstudied areas of knowledge based on a 'natural' method.⁶¹ Where in the first part he was still bound by *auctoritates*, in this part he wished to make use exclusively of 'natural' arguments and explanations.⁶² He apologized in advance for possible repetitions, and in so doing compared his methodology to the medium of music, by means of which it was possible for one to arrive at a deeper and fuller understanding of an issue.⁶³

⁵⁹ Gerland the Computist, *De computo*, Supplementum H: 'Si XXII[I] anni addantur ad annos domini secundum tabulam dionisii. ita uidelicet ut dicatur dyonisium suam tabulam non incepisse ut ipse uoluit in DoXXXoIlo anno completo ab incarnatione domini. sed incipiente DoLoVo: bene poterit inueniri luna XIIIa VIII kalendas aprilis in caena domini. concur<rente> V et epacta XII in XoIIIo anno XVIIIilis cycli.'

⁶⁰ Gerland the Computist, *De computo*, Supplementum H: 'Idem eueniet. si secundum nostram tabulam addamus XXX annos.'

⁶¹ Gerland the Computist, *De computo*, Prologus libri secundi: 'Libellum alterum de nature gremio compilatum annectimus. in quo et aliqua de uolumine superiori ut euidentiora sint repetimus. et aliqua ante nos quod sciamus a nemine pertractata de scola phisice eruta calculamus.'

⁶² Gerland the Computist, *De computo*, Prologus libri secundi: 'Et in superiori quidem partim naturam partim auctoritatem fuimus secuti. Hic uero compotum dumtaxat naturalem explanare intendimus.' Compare with Gerland the Computist, *De computo*, Prologus libri primi: 'Sed si quis Bedem perlegerit. et naturalem compotum tenere uoluerit: hic ut arbitror partim auctoritati partim artis naturae adquiescens non indigne feret hic quaedam posita quae uidentur obuiare Dionisio. quaedam autem quae Helperico.'

⁶³ Gerland the Computist, *De computo*, Prologus libri secundi: 'Quocirca si aliqua bis uel sepius lector alio et alio modo dicta repperit: nequaquam admiretur. nec dependens esse quod pro memoria firmiori et sapore altiori interdum musica succinet calumpniatur. quandoquidem et nature tegi est difficultate. et artis esse debet abdita stilo detegere.'

This comparison was no coincidence, for like *astronomia*, *musica* was a discipline in the quadrivium. Analogous to the prologue of Book I, Gerland provided a table of contents listing the fifteen chapters in Book II.⁶⁴ These deal mainly with the luni-solar discrepancy between sun and moon and with the position of these heavenly bodies with respect to the zodiac.

Conclusion

A Preference for the Greek Tradition

Gerland's chronological correction of Dionysius's Incarnation era constitutes an integral component of his *computus usualis*. By relying on the Venerable Bede, Gerland consciously positioned himself in opposition to some of his contemporaries. It is striking, however, that he provides no justification whatsoever in his *Expositio tabulae* for the corrected era that he used in his *Tabula Gerlandi* (1038 VA = AD 1045). The added indications for the date of Christ's Birth (1 VA = AD 8) and Passion (35 VA = AD 42) are incomprehensible without the explanation provided by Gerland at the conclusion of Book I. Nevertheless this ingenious table and its accompanying commentary constitute a clear illustration of Gerland's capacities as a computist. As Abbo of Fleury had done with his *Laterculus posterior*, Gerland also succeeded in packing a tremendous amount of information onto a single folio. Because of the relatively high degree of complexity, there would presumably have been only a small number of well-schooled computists who were actually able to 'read' this table and employ it for practical purposes.

In Chapters 24–26 Gerland deals with the current controversy surrounding the date of Christ's Passion. He wanted to arrive at this date based on arguments of both analysis and *auctoritas*. For the latter he turned especially to Bede, whose tentativeness he interpreted grammatically as a decided preference for the Greek tradition (*si non verior sententia vincit*). It is striking that Marianus Scottus used precisely this *si*-clause to put Bede's tentative preference for the Greek tradition into perspective.⁶⁵ At the same time, Gerland linked Bede's respectful reference to the *Acta synodi* of pseudo-Theophilus of Caesarea to a sixth-century interpolation in the *Liber pontificalis* in which Pope Victor I declared himself in agreement with

⁶⁴ Gerland the Computist, *De computo*, Prologus libri secundi: 'Vt autem facilius singula in suis locis inueniantur rerum subtilium capitula mox in serie disponantur.'

⁶⁵ Marianus Scottus, *Chronicon*, 2:20–21.

Theophilus of Alexandria. The supposed advanced age of this papal endorsement of Theophilus constituted yet another argument from authority in his apology for the Greek tradition (AD 42). In this game of ever increasing *auctoritates*, it is surprising that Gerland never once makes any reference to the proponents of the Latin tradition, namely Jerome of Strido and Augustine of Hippo. He replaced these ‘invulnerable’ opponents with Dionysius Exiguus.

In this way Gerland was unjustly able to use the date of Christ’s Passion according to Dionysius (AD 34) in his argument against the Latin tradition (AD 12). This illogical connection between Dionysius and the Latin tradition even led to a new argument, namely according to this Latin tradition Christ had died at an impossibly young age. In other words, Gerland here refused to change the date of Christ’s Birth to an earlier date, even though this refusal threatened the validity of his own argument in favour of the Greek tradition. Nor did he mention the fact that according to the same logic Christ could not have died at the age of forty-two. The Gospels had clearly established that Jesus was baptized at about thirty years of age and that His public life had lasted a maximum of 3.5 years.⁶⁶ Nevertheless, the Latin tradition was sufficiently disproved, so the reader must opt for the only alternative, namely the Greek tradition (AD 42). Contrary to Heriger of Lobbes, Gerland did not opt for a correction of eight years (AD 42 = 34 VA), but rather for one of seven years (AD 42 = 35 VA).⁶⁷

Gerland built his entire argument on a previously established position, namely his preference for the Greek tradition.⁶⁸ Although he explicitly implores his reader to study this controversy as objectively as possible, at the same time he does not hesitate to convince that same reader to see things the way he does. This ambiguity, between a seemingly ‘objective’ discussion on the one hand and a subjectively argued position in favour of the Greek tradition on the other, constitutes an important characteristic of Gerland’s chronological correction.

⁶⁶ See Luke 3. 23 and John 2. 13, 5. 1, 6. 4, and 11. 55, respectively.

⁶⁷ Cordoliani erroneously believes that the chronological corrections of Heriger and Gerland are perfectly identical: Cordoliani, ‘Abbon de Fleury, Hériger de Lobbes et Gerland de Besançon’, pp. 470–71. Steele and Van de Vyver make a chronological error by comparing Gerland’s chronological correction with the assumption current at the time that Christ was born *c.* 7 BC: Robert Steele, *Compotus fratris Rogeri Baconi accedunt Compotus Roberti Grossecapitis Lincolnensis episcopi et Massa compoti Alexandri de Villa Dei*, Opera hactenus inedita Rogeri Baconi, 6 (Oxford, 1926), p. xviii, and Van de Vyver, ‘Les oeuvres inédites d’Abbon de Fleury’, p. 157 n. 10.

⁶⁸ A similar piece of evidence in favor of the Latin tradition is also to be found in the chronicle of Marianus Scottus. See the ‘Conclusion’ to Chapter 3.

The Influence of Gerland's Correction

The approximately twenty-five extant manuscripts constitute proof that Gerland's *De computo* did not remain unknown. Whereas Marianus Scottus received many honourable mentions at the hands of medieval chroniclers, Gerland was much better known amongst the twelfth-century computists. In 1119 Philip de Thaon (d. after 1148) borrowed several passages from Gerland the Computist for his vernacular *Li compuz*.⁶⁹ Still, Gerland's outspoken opinions and in particular his unconventional approach in his Book II (*computus naturalis*) did not garner exclusively laudatory comment. In the so-called *Computus Petri* (1171) it is even quite baldly stated that Gerland's *De computo* was no longer read, because it contradicted both Church tradition and authoritative scholars.⁷⁰ A few years later Constabularius (d. after 1175), too, had great difficulty accepting the objectionable nature of Gerland's chronological theories. Despite his admiration for Gerland, he wanted to base his own *Tractatus* (1175) exclusively on patristic teachings that rested on the authority of the Church.⁷¹ He admitted that he had found in Gerland a formidable opponent, but logically concluded that the Church had made a correct

⁶⁹ Paul Meyer, 'Fragment du Comput du Philippe de Thaon', *Romania*, 40 (1911), 70–76 (p. 71).

⁷⁰ Paris, Bibliothèque nationale de France, MS lat. 2020, fol. 198 (s. XII): 'Liber Gerlanni non legitur quia longe usui et doctissimorum auctoritati obviavit.'

⁷¹ London, British Library, MS Cotton Vitellius A XII, fol. 87^v: 'Sepe auctorum volumina qui de compoto vel principaliter vel incidenter egerunt studiose revolvi, inter quos invenio quosdam iuniores in arte calculatoria non mediocriter eruditos longo usui ecclesie rationibus vehementer ut videtur acutis obviare. His quidam nostrorum modernorum applaudentes nuper ausi sunt cartulis pascalibus suas novitates inscribere et sanctorum patrum vestigia pretereire. Sunt enim quidam novitatis venatores et antiquitatis improbi calumpniatores qui etiam in doctrina christinana locum ab auctoritate tanquam inartificiosum superciliose repudiant et de suo confidentes ingenio aliter quam tota ecclesia soli sentire volunt ut soli scire videantur. Sed, quod deterius est, vidi equidem doluique videre scripto quoque commendatum quedam aliter se habere secundum ecclesiam, aliter secundum veritatem. Te quoque, dilectissime, timor Domini et reverentia fidei catholice vehementer abhorre fecerunt veritatem et ecclesiam in aliquo posse reperiri contrarias. Quoniam igitur rationes illorum nobis vise sunt posse non irrationabiliter infirmari, quod proprio consilio non audebam, tuo propulsus instinctu illis respondere aggressus sum [. . .]. Ceterum propter instructionem aliorum et precipue G. mei quem omni scientia et virtute proficere cupio, universum apposui percurrere computum quatenus singula que mihi dubitabilia visa sunt explanarem. Noveris etiam preter ceteros auctores Geralandum quoque imitatum et etiam imitandum in omnibus exceptis his in quibus obviat usui ecclesie, nam ubi bene dicit nemo melius.'

calculation concerning the date of Christ's Birth after all.⁷² A year later, in the prologue of his *Compotus* (1176), Roger of Hereford (d. after 1201) turned against Gerland's new-fangledness as well.⁷³ Finally, an anonymous thirteenth-century computist was also harsh in his judgement of the objectionable nature of Gerland's chronological tract.⁷⁴

This conservative and even sometimes reactionary attitude towards Gerland's *De computo* has also had negative consequences for one of its specific aspects, namely his chronological correction of seven years. Thus it was that Salomon of Canterbury (d. after 1198) gave his full support to the traditionalist aims of Constabularius and saw herein just the thing to he needed to oppose innovators of the likes of Marianus Scottus and Gerland the Computist.⁷⁵ In other instances a corrupted form of Gerland's correction was transmitted. Thus it is that we read in Robert Grosseteste (d. 1253) and Johannes de Sacrobosco (d. 1256) that Gerland had applied a correction of eleven years. Both authors took this faulty information out of the *Computus ecclesiasticus* by an anonymous thirteenth-century author who likely mistook Gerland's exposition of the Latin tradition (AD 12) as a chronological correction of the date of Christ's Birth according to Dionysius.⁷⁶

Finally, Gerland the Computist was also thoroughly studied by Roger Bacon. In his now-lost tract *De termino paschali* he had already devoted a great deal of

⁷² London, BL, MS Cotton Vitellius A XII, fol. 97^v: 'Constat ergo per premissas rationes immo longe potiores, licet a me ignorentur, ecclesiam rectissime annos incarnationis computasse.' See also Jennifer Moreton, 'The Compotus of "Constabularius" (1175): A Preliminary Study', *Language, sciences, philosophie au XIII^e siècle*, Sic et non (1999), 61–82 (pp. 67–70).

⁷³ Oxford, Bodleian Library, MS Digby 40, fol. 50^r: 'vero volentes ecclesiastice vulgari consuetudine tamen satisfacere, multa abicere necessaria inventi sunt'.

⁷⁴ London, BL, MS Cotton Vitellius A XII, fol. 102^v: 'Inter ecclesiasticos autem viros Dionisius, Bede, Theophilus, Helpericus, postremo autem Gerlandus potissimi fuerunt. Gerlandus tamen rationibus quibusdam innitens in multis longo Ecclesie usui contradicit. Unde ipsum pro minimo habet Ecclesia: simplices enim fide, non perversores, querit.'

⁷⁵ London, British Library, MS Egerton 3314, fol. 1^r: 'Peccator ego Salomon ecclesie Christi dictus monachus, cum modernorum computistarum diligenter scripta reuoluerem, apud illos notulas repperi, quibus aliqua quae ab antiquis dicta sunt diffusius, iocunde breuitatis compendio colligantur. [...] Sed et in calce huius scedule quiddam de magistri Cunestabuli scriptis inserui, in quo sane contra Marianum et Gerlandum pro ecclesia de annis domini astronomicis rationibus efficaciter disputatur. Succedit tabula mee utique imperitiae non negligenda.'

⁷⁶ Jennifer Moreton, 'John of Sacrobosco and the Calendar', *Viator*, 25 (1994), 229–44 (p. 237 n. 48 and pp. 240–44).

attention to Gerland's choice for the Greek tradition, and against the Latin.⁷⁷ In Book II of his *Compotus* (1263–65) Roger referred to the difference of seven years between Dionysius and Gerland (1 VA = AD 8).⁷⁸ He apparently agreed with this chronological correction, for he gave credit to Gerland for having continued where Bede had stopped.⁷⁹

The significance of Gerland's *De computo* lay especially in his controversial methodology. In his Book II he no longer relied on *auctoritates* to arrive at his results, and this nontraditional approach caused a real controversy in the computistical world of his day. In the short term, Gerland was not able to convince his skeptical contemporaries, and therefore his chronological correction of seven years was accepted by few later authors. On the other hand and in the long term, his controversial methodology represented yet another step in the growth of a medieval scholar towards intellectual autonomy.

⁷⁷ Roger Bacon, *Compotus*, p. 97: 'Dicebat enim Dionisium et totam ecclesiam deceptos in annos Dominice Incarnacionis, sue in augmento.8. annorum sive in defectu.22.; et quid ad hoc eum induxerit ostensum est in libro de termino paschali.'

⁷⁸ Roger Bacon, *Compotus*, pp. 121–22: 'Si quis autem voluerit scire quotus sit annus cycli in quocunque anno voluerit, noverit quotus est annus ab Incarnacione Domini ille de quo querit, et annis Dominice Incarnacionis addat.8.; quia nonus erat annus cicli secundum Garlandum, quando natus est Dominus, et post addicionem huiusmodi totam summam dividat per.19., et numerus denotans quociens monstrat quot cycli transierunt ab Incarnacione. Si vero nichil residuum fuerit post divisionem, tunc decimus nonus annus erit cycli residui. Si vero aliquid remanserit post divisionem, totus erit annus cycli residui quotus erit numerus residuus secundum Garlandi opinionem. Secundum Dyonisium vero, unus est addendus annis Dominice Incarnacionis, quia secundum cycli erat, secundum ipsum, quando natus est Dominus.'

⁷⁹ Roger Bacon, *Compotus*, p. 190: 'Post hunc vero Dionisium fuerunt alii auctores et expositores ejusdem negocii, inter quos et Venerabilis Bede duos libros condidit *de natura temporum*, et alius nomine Helpericus, qui et mulats et planas dedit regulas calculandi tempora secundum usum ecclesie, et ideo liber ejus vocatus est compotus. Fuit et post hos alius nomine Garlandus, non solum exponens vel addens predictis aliqua, set etiam arguens et corrigens precedencium errata in computatione temporum, et precipue Dionisium Abbatem, cujus errorem etiam dicit deprehensum a domino Bede in libro suo secundo de temporibus set non correctum.'

SIGEBERT OF GEMBLoux (D. 1112)

Biography of a Famous Scholar

Sigebert was born *c.* 1026 and betook himself as an oblate to the abbey of St Peter at Gembloux.¹ His intellectual capacities were honed by the then Abbot Olbert of Gembloux (d. 1048), who had himself been a student of Heriger of Lobbes and had also studied in Paris, Troyes, and Chartres.² Around 1051 the still young Sigebert became scholaster at the abbey of St Vincent in Metz at the behest of the local abbot, Folcuin (d. *c.* 1075). This move from Gembloux to Metz comes as no surprise, because this same Folcuin was the brother of Sigebert's former abbot Mashelin (d. 1071) and at the same time a former student of Sigebert's teacher Olbert.³ In Metz Sigebert wrote a *Vita sancti Theoderici episcopi* about Bishop Theoderic I (d. 984), who was also the founder of the abbey of St Vincent. Not much later there followed two more saints lives by his hand, namely the *Passio sanctae Luciae* and the *Vita Sigeberti regis*. Both protagonists were involved in the early history of Metz. Saint Lucia (d. 310?) was venerated at the abbey of St Vincent itself, and the Merovingian king Sigebert III (d. 656) was the founder of the neighbouring abbey of St Martin at Metz. In these hagiographies Sigebert of Gembloux not

¹ On Sigebert's life, see Mireille Chazan, *L'empire et l'histoire universelle de Sigebert de Gembloux à Jean de Saint-Victor (XII^e–XIV^e siècle)*, Études d'histoire médiévale, 3 (Paris, 1999), pp. 33–104.

² On the influence of Heriger of Lobbes on Olbert and Sigebert of Gembloux, see Robert G. Babcock, 'A Revival of Claudian in the 10th Century', *Classica et Medievalia*, 37 (1986), 203–21 (p. 213).

³ Joachim Wiesenbach, 'Sigebert von Gembloux', in Sigebert of Gembloux, *Liber decennalis in modum dialogi compositus*, ed. by Joachim Wiesenbach, Monumenta Germaniae Historica, Quellen zur Geistesgeschichte des Mittelalters, 12 (Weimar, 1986), pp. 9–31 (p. 10).

only borrowed material from patristic texts by Jerome and Augustine, but he drew upon ancient 'pagan' poets such as Horace (d. 8 BC).

Around 1070 Sigebert returned to Gembloux, where he was immediately given the office of scholaster. His literary production achieved its high point here. This time his hagiographical writings served logically to celebrate Gembloux itself, or Liège, the prince bishopric to which Gembloux belonged. Among other things Sigebert wrote a heroic narrative about the patron saints of Gembloux (*Passio sanctorum Thebeorum*), about the founder of the abbey of St Peter at Gembloux (*Vita sancti Guiberti*), as well as a number of adaptations of existing saints lives (*Vita sancti Maclovii*, *Vita et passio sancti Theodardi*, and *Vita sancti Lamberti*).

And yet Sigebert's interests gradually crossed the thin line between hagiography and historiography. The first witness to this is his *Gesta abbatum Gemblacensium* (c. 1070). Ultimately, c. 1100, Sigebert completed the first version of his *Chronica universalis* (up to 1084), a great synthesis of hagiographical and historiographical data from a strongly Lotharingian perspective and, together with the chronicles of Frutolf of Michelsberg (d. 1103) and Otto of Freising (d. 1158), one of the high points of the genre.⁴

Sigebert was the first medieval author to succeed in extending the annalistic/synchronic model of the Eusebian/Jeromian chronicle through to his own day (*contemporalitas regnorum*). He got most of the information he needed from the rich libraries of Metz and Gembloux itself. The latter library had grown in particular during the abbacy of Olbert (1012–48), who had brought approximately 150 volumes with him from Lobbes. The immediate success of his chronicle prompted Sigebert to produce a revised version (up to 1111).

In the meantime, however, Sigebert had also become involved in the investiture controversy. With the help of Robert I Friso (d. 1093), the Count of Flanders, the then Pope Paschal II (d. 1118) had threatened to lay siege to the prince bishopric of Liège, because in his view Liège had created a profile for itself as a supporter of the Roman emperor Henry IV (d. 1106). In this context Sigebert wrote among other things an *Apologia contra eos qui calumniantur coniugatorum sacerdotum* (1075) and an *Epistola Leodicensium adversus Paschalem papam* (1103). In the process Sigebert developed a great deftness in rhetorical techniques in formulating the Liège standpoint with respect to the Gregorian reform.

And yet Sigebert also found the time to be engrossed in more intellectual discussions. Thus he wrote among other things a largely lost commentary on the book

⁴ Von den Brincken, *Studien zur lateinischen Weltchronistik*, p. 182.

of Wisdom in hexameters (*Ecclesiastes*) and a little-known chronological study under the title *Liber decennalis* (1092). Sigebert concluded his impressive oeuvre with a work of high literary quality in the *Catalogus de viris illustribus* (1111). In this survey of 172 important writers from all of Christian history, Sigebert was the first to revert to a tradition that had come to an end with Jerome of Strido and Gennadius of Marseille (d. after 495). He did not neglect to include himself as the last author in this respect.⁵ Ultimately, at well over eighty years of age, Sigebert died on 5 October 1112.

Sigebert's Correction of the Christian Era

Introduction

At the end of his *Catalogus de viris illustribus* Sigebert of Gembloux reports that he had also written a *Liber decennalis*.⁶ The term *decennalis* is derived from *decem anni magni*, that is, ten cycles of 532 years each.⁷ This relatively unknown work of Sigebert's is thus in fact a multiple Easter table consisting of ten 532-year cycles, preceded by a tripartite prologue in dialogue form. The Easter table itself is now lost, but the prologue is preserved in one manuscript from the beginning of the thirteenth century.⁸ This text, transmitted anonymously, was only in 1977 identified by Joachim Wiesenbach as the prologue to Sigebert's *Liber decennalis*.⁹ Before that, the contents of this 'anonymous' text had been studied only by Anna-

⁵ Sigebert of Gembloux, *Catalogus de viris illustribus*, ed. by Robert Witte, *Lateinische Sprache und Literatur des Mittelalters*, 1 (Berne, 1974), pp. 103–06.

⁶ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 106: 'Et quia decem magnis cyclis, qui singuli DXXXII annis constant, omne opus distinxī, ipsum librum hoc titulo prenotavi, ut decennalis vocetur. Prologum in morem dialogi anteposui, quem tribus thomellis divisi, indicans sub persona interrogantis et respondentis intentionem et utilitatem ipsius operis, et ad quam partem philosophie pertineat, scilicet ad phisicam. Subiunxi etiam utiles regulas inveniendi annos et terminos et indictiones secundum dispositionem ipsius.'

⁷ Sigebert of Gembloux, *Liber decennalis*, 3:62 (p. 285): 'Libellus hic, si tibi videtur, decennalis appellari poterit, ut, quid insinuet, ex ipsa tituli inscriptione aperiri possit. Continet enim rationem decem magnorum annorum.'

⁸ Rome, Bibliotheca Angelica, MS 1413, fols 1^r–23^r (s. XIIIin).

⁹ Wiesenbach, 'Der *Liber decennalis* in der Hs. Rom'.

Dorothea von den Brincken.¹⁰ Finally, Wiesenbach drew attention to this important text in 1986 by means of a reliable critical edition.¹¹

We know that Sigebert wrote his *Liber decennalis* in 1092, because that year is designated in the text itself as the then *annus praesens*.¹² This date of origin can be situated precisely in the period in which Sigebert was collecting materials for a revised version of his chronicle (up to 1111). Wiesenbach and Chazan propose the hypothesis, however, that Sigebert's *Liber decennalis* also underwent two redaction phases, namely in 1092 and in 1111.¹³ They base this theory on Aubertus Miraeus (d. 1640) who indicates in the introduction of his edition of Sigebert's chronicle that he had been able to consult another version of Sigebert's *Liber decennalis* at Gembloux itself. Miraeus reports additionally that in this now lost Gembloux manuscript, the terms *magister* and *discipulus* were personified by Sigebert himself and a certain Anselm, probably to be identified with the later Abbot of Gembloux (d. 1136).¹⁴ It is, however, unlikely that this personification came from Sigebert himself, for in his *Catalogus de viris illustribus* he writes only about a dialogue 'sub persona interrogantis et respondentis'.¹⁵ Miraeus's reference to a lost manuscript provides insufficient evidence to confirm the existence of two different redaction phases.¹⁶

A remarkable aspect of Sigebert's *Liber decennalis* is the dialogue format he chose. This dualistic structure was not uncommon in early medieval chronological treatises, with such important examples as the *Acta synodi* by pseudo-Theophilus of Caesarea (written before 429), the Irish compilation *Sententiae in laude compoti*

¹⁰ Anna-Dorothea von den Brincken, 'Kritik an Marianus Scottus und anderen Chronologen im *Liber decennalis in modum dialogi compositus* von 1092', *Deutsches Archiv für Erforschung des Mittelalters*, 17 (1961), 231–38.

¹¹ Sigebert of Gembloux, *Liber decennalis*, ed. by Wiesenbach.

¹² Sigebert of Gembloux, *Liber decennalis*, 3:63 (p. 286): 'Secundum Dionisium autem est annus ab adam quinque millesimus quadragesimus tercius, ab incarnatione vero Domini est annus millesimus nonagesimus secundus.'

¹³ Wiesenbach, 'Der *Liber decennalis* in der Hs. Rom', p. 180, and Chazan, *L'empire et l'histoire universelle*, p. 96.

¹⁴ Sigebert of Gembloux, *Chronicon*, ed. by Aubertus Miraeus, *Rerum toto orbe gestarum chronica a Christo nato ad nostra usque tempora* (Antwerp, 1608), no pages given (introduction): 'Liber decennalis ut ipse Sigebertus nuncupat [...] una cum dialogo praefixo, cuius hic est titulus: Dialogus Sigeberti sub persona Anselmi quaestionantis et ipsius solventis de errore Dionysii super annos Domini.'

¹⁵ Sigebert of Gembloux, *Catalogus de viris illustribus*, ch. 172.

¹⁶ Wiesenbach later recognized the weakness of this hypothesis: Wiesenbach, 'Sigebert von Gembloux', p. 22.

(before 658), the Carolingian *De ratione computi liber* (771), Hrabanus Maurus's *De computo* (820), and Heriger's lost dialogue with Adalbold of Utrecht on the precise number of Sundays in Advent (after 990). Such dialogues were usually conducted between an all-knowing magister and an ignorant disciple. Sigebert, however, composed a dialogue after Plato's model, in which both interlocutors went in search of possible solutions on an equal footing. Such a format had a didactic advantage, in that Sigebert could insert repetitions and refinements when he wished to present complex material to his readers. A second and at the very least equally important advantage was that Sigebert could at will identify with or hide behind either of his two interlocutors. Sigebert had after all set out to resolve once and for all with the current confusion surrounding the Dionysian era.

Liber decennalis in modum dialogi compositus (1092)

Liber primus

The first book of Sigebert's *Liber decennalis* opens with a bipartite main question posed by the student to his master. He asks, amazed, why no one has ever succeeded in correctly calculating the year of Creation (AM 1) and the Incarnation and Passion of Christ (1 VA and 34 VA).¹⁷ According to the teacher, the latter part had already been sufficiently addressed by the Gospels and by historiographers, but at the same time he acknowledged that he was intrigued by the prospect of a search to find the year of the Creation of the world.¹⁸ And yet he was convinced that the chronographers had made a wise decision in remaining as silent as possible about the first and most distant *aetas*.¹⁹ The student admitted that original sin did not deserve emulation, but on the other hand he still wanted to know more about the

¹⁷ Sigebert of Gembloux, *Liber decennalis*, p. 177 (1:1): 'INTERROGATIO DISCIPULI: Cum temporum scriptores diversi, quamvis diverse, annos mundi collectos usque ad Christi nativitatem perduxerint, satis superque miror, cur nullus eorum primum mundi annum aperte designaverit, sed nec annum dominice nativitatis vel passionis certa temporis proprietate denotaverit.'

¹⁸ Sigebert of Gembloux, *Liber decennalis*, p. 177 (1:2): 'MAGISTER: De annis nati vel passi Christi otiose quereris, cum historiographi et ewangeliste eum natum, baptizatum, passum certis annorum insinuent titulis. At laborare de inveniendi primo anno mundi, quid curiosius potest videri?'

¹⁹ Sigebert of Gembloux, *Liber decennalis*, p. 177: 'Cronographi sane pro eo, quod operam suam scribendo narraverunt, aliorum iudicio fuerint sapientes, ego eos dico sapientiores pro eo, quod penitus siluerunt de illa etate, cuius omnia monimenta in diluvio consepulta iusto Dei iudicio credebant ex toto evanuisse.'

Creation era that logically began on the very first day of Creation.²⁰ It was his ambition to link in a chronologically acceptable way the date of Creation and the Passion of Christ, according to the gospel verity and with the aid of successive nineteen-year cycles.²¹

The master curbs this ambition, however, by positing that his student is venturing into forbidden terrain.²² Moreover, it was an impossible task to forge a chronological link between the date of Creation and the date of Christ's Passion.²³ He refers to the book of Wisdom (3. 10–11), in which it is stated that God had brought confusion to men so that they would not be able to comprehend His Creation.²⁴ The student acknowledges his thoughtlessness, but he would then like to know what makes the chronological link between the date of Creation and Christ's Passion so impossible.²⁵ This question, too, is skillfully deflected by the master with the argument that the time for such an inquiry had not yet come.²⁶

The student understands that he may not penetrate these defenses and tries another strategy. He now wants more information about the date of Christ's

²⁰ Sigebert of Gembloux, *Liber decennalis*, pp. 177–78 (1:3): 'DISCIPULUS: Obliteraverit merito totam illius etatis memoriam eterna oblivio. Homo enim per se proclivis ad malum non eget malorum exemplo; solus, quem solum Deus superesse passus est, annorum a nobis queritur ordo.'

²¹ Sigebert of Gembloux, *Liber decennalis*, p. 178: 'Scis hoc solum me intendere, ut per annos mundi certum et congruentem ewangelice veritati annum dominice passionis possim invenire, itemque per annos Christi ad primum mundi annum redire et ciclum decennovenalem, quem naturali argumentatione institutum tenemus, cum annis mundi concordemus.'

²² Sigebert of Gembloux, *Liber decennalis*, p. 178 (1:4): 'MAGISTER: Facessat hec tua curiositas, ne aliquorum per hoc offendatur caritas, dum equanimiter non ferent, quod te non querenda querere vident.'

²³ Sigebert of Gembloux, *Liber decennalis*, p. 178: 'Nam queris difficile, queris et impossibile. Annis annos conferre et alterum per alterum aliquo modo discutere, etsi est difficile, forte tamen est possibile. At ciclum decennovenalem rationali nature argumentatione institutum cum annis mundi componere omnino est impossibile.'

²⁴ Sigebert of Gembloux, *Liber decennalis*, p. 178: 'Proinde si me, ut operam inanem insumam, urgere ceperis, opponam tibi illud Ecclesiastis: Vidi, inquit, afflictionem, quam dedit Deus filiis hominum, ut distendantur in ea. Cuncta fecit bona Deus in tempore suo, et mundum tradidit disputationi eorum, ut non inveniat homo opus, quod operatus est Deus ab initio usque ad finem.'

²⁵ Sigebert of Gembloux, *Liber decennalis*, p. 178 (1:5): 'DISCIPULUS: Quod me nescire nesciebam et unde nec dubitare sciebam, non mirum, si leve querebam. Sed quia negas omnino quam quero posse fieri concordiam, saltem unde hec tam incorrigibilis discordia fiat ediscam.'

²⁶ Sigebert of Gembloux, *Liber decennalis*, p. 178 (1:6): 'MAGISTER: Oportune queretur. Quia, ut ait Salomon, sermo oportunus est optimus.' See also Proverbs 15. 23.

Passion according to the gospel verity.²⁷ In the face of this request the master must also adapt his tactics, and as a solution he proposes to study this issue using the most important patristic and historiographical sources.²⁸ The student has already done such a study, however, and concluded that this approach raises more questions than it answers.²⁹ In this way he makes a breach in the walls of his master's defensive posture, for he is now given the opportunity to clarify the contents of his viewpoint.³⁰

According to the student, the problem lay in the date of Christ's Passion according to Dionysius Exiguus (AD 34). Despite the correct use of the chronological parameters Dionysius deviated in this year from the gospel verity.³¹ Subsequently the student gives an exhaustive chronological overview of Holy Week according to the lunar data in the Gospels.³²

²⁷ Sigebert of Gembloux, *Liber decennalis*, pp. 178–79 (1:7): 'DISCIPULUS: Expectatione duco gravius te fide ewangelii dubitare aliquatenus. Ideo de anno dominice passionis secundum congruentiam temporis et veritatem ewangelii certificari in primis aveo, cetera querenda in secundis habeo.'

²⁸ Sigebert of Gembloux, *Liber decennalis*, p. 179 (1:8): 'MAGISTER: Patrum inde sententias collige, annales maiorum revolve et ex multis unum aliquid confice!'

²⁹ Sigebert of Gembloux, *Liber decennalis*, p. 179 (1:9): 'DISCIPULUS: Hoc me fecisse fateor, et dum de multis incertis aliquid certum facere molior, reddor de omnibus incertior.'

³⁰ Sigebert of Gembloux, *Liber decennalis*, p. 179 (1:10): 'MAGISTER: Ne ergo a querendo deterrearis, dic, in quo scriptis maiorum adeo offendaris.'

³¹ Sigebert of Gembloux, *Liber decennalis*, p. 179 (1:11): 'DISCIPULUS: Multum multos etiam usque ad indignationem sepe movit, quod Dionysius abbas Romanus ciclum magni anni sui ita ordinavit, ut, dum veritatem rerum elucidare conatur, in ipsam veritatem offendere videatur. Quale enim censes, quod recto tenore prosequitur ciclos lunares, epactas et regulares Aprilis lunas XIIIas, ipsius quoque dominici diei in Nicena sinodo ad rite observandum pascha lunas a XVa usque ad XXIam recte prefixas, in die autem dominice passionis prenotanda, in qua fidei et salutis nostre consistit summa, aliena ab ewangelii incedit via?'

³² Sigebert of Gembloux, *Liber decennalis*, pp. 179–82: '(1:12) Inspecta enim ewangelistarum concordia, veritas docet ewangelii, quod ante quinque dies pasche, prima scilicet feria, quam dominicam diem vocamus, Iesus a Bethania venit Ierosolimam, exceptus inaudito applausu cum ramis palmarum occurrentis populi. Vespera rediit Bethaniam, unde rursus mane secunde ferie vadens Ierosolimam, esuriens salutem hominum, maledixit in ficu infructuosam Iudeorum perfidiam. Vespera rursus Bethaniam et mane tercie ferie repetens Ierosolimam, stupentibus discipulis ad maledictionem eius ficum esse arefactam ariditatis eius aperuit significantiam. (1:13) Hoc die post multam copiam doctrine salutaris ait discipulis: Scitis, quia post biduum pascha fiet et filius hominis tradetur ut crucifigatur. Hoc biduum quartam et quintam feriam fuisse docet ewangelium. Nam, quarta feria inter Iudeos et Iudam Scariothen de tradendo Iesu convenit, quinta vero feria, quando luna quarta decima fuit, ad vesperam Dominus Iesus cum suis cenavit et manducato pascha, postquam

Table 38

Sun.	luna x	Bethany → Jerusalem Palm Sunday Jerusalem → Bethany
Mon.	luna xi	Bethany → Jerusalem Cursing of the fig tree Jerusalem → Bethany
Tue.	luna xii	Bethany → Jerusalem Wilted fig tree Post biduum pascha fiet Jerusalem → Bethany
Wed.	luna xiii	Judas betrays Jesus to the Jews
Thu.	luna xiv	Last Supper of Christ Arrest of Christ
Fri.	luna xv	Christ condemned to death Jews mock Christ Crucifixion of Christ Burial of Christ
Sat.	luna xvi	Christ rests in the tomb
Sun.	luna xvii	Resurrection of Christ

The student adds one piece of data to this gospel doctrine, namely that the day of the week of Christ's Resurrection (Sunday) did coincide with the day of the week of the first day of Creation (Sunday).³³ Although these gospel data incontrovertibly contained the truth, Dionysius Exiguus indicated in his Easter table that Christ had died in His thirty-fourth year, namely in the nineteenth regnal year of Tiberius with epact 15 and concurrent 4 (=AD 34).³⁴

dedit eis calicem, qui significabat consummationem veteris legis, post lavationem pedum iterum recumbens, per panis benedicti fractionem et per secundum nove legis calicem nuntiavit misterium corporis sui et sanguinis. (1:14) Eadem nocte traditus et mane sexte ferie morti adiudicatus, hora tertia linguis Iudeorum, hora sexta crucifixus manibus Romanorum, hora, nona exanimatus, circa vesperam est sepultus, addente ewangelista, quia erat parasceve Iudeorum, qui preibat magnum illum diem sabati, magnum non tantum propter requiem sabati vel celebritatem azimorum, sed etiam quia Dominus sabati illo die corporaliter quievit in sepulchro.' See also Augustine of Hippo, *De consensu evangelistarum*, 2:68, 2:78, 3:13, and 3:24; and Marianus Scottus, *Chronicon*, 1:2.

³³ Sigebert of Gembloux, *Liber decennalis*, p. 182: 'Primam sabati resurrectio Domini illustravit, ut dies, que prima fuit in initio Creationis, prima esset etiam in initio nostre per resurrectionem recreationis. Hec est ewangelica doctrina.'

³⁴ Sigebert of Gembloux, *Liber decennalis*, pp. 182–83 (1:15): 'Ideo male me habet, quod Dyonsius, vir sanctus et disertus, a nobis dissidet. Orditus enim cyclum suum, annum scilicet magnum

The attentively listening master confirms that the paschal term in AD 34 did indeed fall on a Sunday and that according to this reasoning Christ had died on a Monday and was resurrected on a Wednesday.³⁵ According to the same reasoning the Gospels would be lying by stating that Christ had risen on a Sunday.³⁶ The problem here was, however, that Christ's Resurrection according to Dionysius (Sunday, luna xxi) came not three but seven days after His Passion according to Dionysius (Monday, luna xv).³⁷ And this was in flagrant contradiction with Christ's own words (Matt. 12. 40).³⁸ Consequently the date of Christ's Passion according to Dionysius contradicted the gospel verity in both lunar and solar terms.³⁹ A possible alternative was the preceding year in Dionysius's Easter table

annorum DXXXII, ponit in secundo primi cycli decennovennalis anno Iesum Christum XLIIo Octaviani anno natum, XVo Tyberii baptizatum, XVIIIo eiusdem cesaris anno passum, scilicet XXXIIIo etatis ipsius anno, qui occurrit in anno secundi cycli decennovennalis XVIo, qui annus habet epactas XV, concurrentes IIII, versum paschalis termini Duodene namque docte quaternis.' The chronographical reference to Tiberius does not appear in Dionysius Exiguus.

³⁵ Sigebert of Gembloux, *Liber decennalis*, p. 183 (1:16): 'MAGISTER: Eia, calculator, mecum attende! Concurrentes ipsius anni IIII cum quatuor regularibus termini paschalis iuncti octo faciunt. Ablatis VII remanet unus. Secundum hanc regulam etiam pueris notum est in prima feria occurrere terminum pasche, XIIIa scilicet Aprilis luna. Quid ergo? Si voluerit Dyonisius secundum cursum lunarum mysteria passionis et resurrectionis dominice ordinare, nimirum diceret Iesum dominico die ad vesperam secundum observationem XIIIa lune pascha celebrasse et eadem nocte traditum, secunda feria, luna scilicet XVa, crucifixum, tertia feria, luna scilicet XVIa, in sepulcro quievisse, quarta vero feria, luna scilicet XVIIa, a mortuis resurrexisse.'

³⁶ Sigebert of Gembloux, *Liber decennalis*, p. 183: 'Ergo per hoc, quod vel cogitare est nefarium, mentitur ewangelium, in quo legimus Iesum passum in VIa feria, que vocatur parascheve, sabbato quievisse, dominico die resurrexisse.'

³⁷ Sigebert of Gembloux, *Liber decennalis*, pp. 183–84 (1:17): 'Si vero secundum eundem Dionisium consenserimus diem resurrectionis eius protelare in diem dominicum, quem prenotat idem Dyonisius Vo kal. Aprilis, luna XXIa, iam non habemus triduum sepulture Domini, sed a morte eius, si ea provenit hora nona secunde ferie, usque ad diem dominicum habebimus dies VII, secunde scilicet ferie parte residua synedochicos pro uno die accepta, et V dies integros, id est terciam feriam, quartam, quintam, sextam, sabbatum et rursus prima parte diei dominici synedochicos pro uno die accepta.'

³⁸ Sigebert of Gembloux, *Liber decennalis*, p. 184: 'Quod quam sit absurdum, ex ipsius Domini verbis patet predicentis sepulture sue triduum. (1:18) Sicut fuit, inquit, Ionas in ventre ceti tribus diebus et tribus noctibus, ita erit filius hominis in corde terre.'

³⁹ Sigebert of Gembloux, *Liber decennalis*, p. 184: 'Si vero neglecto cursu lunarum accipiamus mortem et resurrectionem Domini secundum tenorem dierum, ut habeat Dyonisius, dominice sepulture triduum nec sic bene concordabimus ewangelio, dum legale pascha separamus a pascha nostro, per immolationem veri agni nobis initio.'

(AD 33), because other credible authors had posited that Christ had died in His thirty-third year.⁴⁰ This did not solve the problem, however, for the paschal term in AD 33 fell unambiguously on a Wednesday.⁴¹ Moreover, neither option (AD 33 and AD 34) agreed with the two existing traditions concerning the calendar day of Christ's Passion, namely the Latin tradition (25 March) and the Greek tradition (23 March).⁴²

At this the discussion fell into a dangerous impasse. Despite applying the right rule of thumb (*regula*) for calculating the weekday of the paschal term, the result could not be reconciled with the Gospels.⁴³ On the one hand the rule could not be changed, and on the other hand one must not and could not contradict the Gospels.⁴⁴ The master reinforced the latter prohibition with a reference to Augustine's statement that this is the worst kind of lie.⁴⁵ It is also important for the master to

⁴⁰ Sigebert of Gembloux, *Liber decennalis*, p. 184 (1:19): 'Voluerit forsan Dyonisius annum dominice passionis ponere in superiori anno, anno scilicet Tyberii XVIIIo, etatis vero Iesu anno XXXIIIo. Hoc enim etatis sue anno eum passum tradunt multi probabiliū auctorum.' Sigebert has primarily Eusebius of Caesarea and Jerome of Strido in mind here. See also Sigebert of Gembloux, *Liber decennalis*, 3:27.

⁴¹ Sigebert of Gembloux, *Liber decennalis*, pp. 184–85: 'Hoc erroris anfractu compendiosius quidem deviabit a vero, sed non leviori errandi periculo. Hoc enim anno tres concurrentes versusque paschalis termini Kalende Aprilis unum exprimunt in quarta feria lunam XIIIam provenire ostendunt. (1:20) Quid hinc proveniat, me tacente ratio monstrat, scilicet XIIIa luna ad vesperam IIIe ferie debuisse celebrari pascha, Iesum vero non in parasceve, sed in quinta feria passum et sepultum. Ut ergo resurrectionem eius in nonas Aprilis, hoc est in dominico die, cum Dionisio celebremus, non iam triduum, sed quadriduum habemus, nisi forte aliquis ad tenendum triduum sextam feriam et sabbatum pro biduo integro teneat, ultimam vero partem quinte ferie et primam partem dominice diei simul iungens synedochicos pro uno die accipiat.'

⁴² Sigebert of Gembloux, *Liber decennalis*, p. 185 (1:21): 'Quis hoc intelligens non abhorreat, quis non intelligentes hinc tam periculose errare equanimiter ferat? Utrolibet ergo anno passionem Domini ponat, penitus ab ewangelio discordat, nec in aliquo vel Latinis, qui eam in VIIIo kal. Aprilis, nec Grecis, qui in Xo kal. Aprilis ponunt, concordat.'

⁴³ Sigebert of Gembloux, *Liber decennalis*, p. 185: 'Si enim regula concurrentium et regularium asseruerit secundum Dyonisium tali dierum ordine Iesum fuisse passum, infirmatur, quod absit, ewangelium.'

⁴⁴ Sigebert of Gembloux, *Liber decennalis*, p. 185: 'Et certe regula concurrentium et regularium naturaliter prefixa vacillare non potest. Quis hic audebit concludere: ergo infirmatur ewangelium? Omnimodis enim cavendum est omnibus, ne quid contrarium ewangelice fidei dicant.'

⁴⁵ Sigebert of Gembloux, *Liber decennalis*, p. 185 (1:22): 'Naminter multa genera mendacii evitandum est, ut ait Augustinus, capitale mendacium longeque fugiendum, quod fit in doctrina religionis, ad quod mendacium nulla conditione quisque adduci debet, quia mentiri in doctrina pietatis

point out the ultimate purpose of Dionysius's Easter table. Despite Dionysius's chronological carelessness, his intentions could have been the same as his student's.⁴⁶

The student, too, makes a plea for extenuating circumstances. In Dionysius's letter to Bishop Petronius there was nothing to be found fault with, nor was a charge of propagating a lie against the faith applicable to Dionysius.⁴⁷ Moreover, the same authoritative Augustine had made another pronouncement about lies: if the speaker does not know that he speaks a lie, then he is not a real liar, but he has rather been misled.⁴⁸

Following these mitigating qualifications, the master states that the date of Christ's Birth according to a 532-year Dionysian cycle fell in AD 1 (2/532) and the date of Christ's Passion in AD 34 (35/532).⁴⁹ Despite the general acceptance of the Dionysian Easter reckoning, a chronological problem remained with respect to the

magnum est scelus et primum genus mendacii detestabilis. Si enim iota unum vel unus apex non preteribit imperfectum in lege veteri, que est umbra ewangelii, quanto magis nec in iota vel apice uno debet aliquis errare in ewangelio, quod est veteris legis adimpletio.' See also Augustine of Hippo, *De mendacio*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 40 (Paris, 1845), cols 487–518, 4:5.

⁴⁶ Sigebert of Gembloux, *Liber decennalis*, p. 186 (1:23): 'Super anno dominice passionis tam inconsiderate notato queri merito quidem videris. Sed si intentionem scribentis diligenter inspexisses, dum ad quem finem spectaret eius intentio attenderes, forsitan mentem eius quasi tecum loquentis videres.'

⁴⁷ Sigebert of Gembloux, *Liber decennalis*, p. 186 (1:24): 'DISCIPULUS: Ego non possum impere animo meo, ut credam eum ita sapuisse de dominice passionis anno. Lege intelligendo eiusdem Dyonisii scriptam ad Petronium episcopum cycli, de quo agitur, prefationem, et puto, quia eius approbas intentionem, non improbabis eius fidem. Nec eum ex verbis Augustini mendacii in religionem arguere poteris.'

⁴⁸ Sigebert of Gembloux, *Liber decennalis*, pp. 186–87: 'qui, etsi aliquid non recte scribendo posuit, quod recte credendo sapuit, se etiam mendacio absolvere poterit ex sententia Augustini eiusdem, qua ait: Ex animi sui sententia, non ex rerum ipsarum veritate vel falsitate mentiens vel non mentiens iudicandus est; qui enim enuntiat falsum pro vero, quod tamen verum esse opinatur, quia cor duplex non habet, non fallere cupit, sed fallitur. Hac sententia Augustini Dyonysius in cyclo suo potuit quidem falli, noluit tamen mentiri'. See also Augustine of Hippo, *De mendacio*, 3:3.

⁴⁹ Sigebert of Gembloux, *Liber decennalis*, p. 187 (1:25): 'MAGISTER: Multam operam in excusando Dyonysio insumis, cum eum, etsi bene sensit, male tamen scripsisse diffiteri non possis. Dyonysius prima sui operis linea annis Domini deputata in primo anno sui operis ponit annum Domini DXXXIIum, quasi ipse Dominus primi magni anni ante Dyonysium exacti secundo anno natus sit et in secundi decennovennalis cycli anno XVIo passus sit, qui annus passionis debuit per omnia in ratione compoti concordare anno sui operis XXXIIIo.'

accompanying Incarnation reckoning.⁵⁰ The master therefore proposes to study first the letter from Dionysius to Bishop Petronius. This way they will gain a better understanding of his intentions and in that way a possible explanation for this chronological incongruity.⁵¹ The student agrees, and Sigebert next cites an extended passage from Dionysius's letter to Bishop Petronius.⁵²

Based on this passage the master concludes Dionysius wanted to conclude his Easter table in the last year of pseudo-Cyril's ninety-five-year cycle, but this does not sufficiently explain the chronological data with respect to the year of Christ's Passion (AD 34).⁵³ According to the master, two possibilities remain: either Dionysius's era is incorrect, or an error has crept into the equation of this Dionysian era with the regnal years of Diocletian.⁵⁴ The possibility that the Diocletian regnal years themselves might be erroneous is something the master wants to investigate only after he completes his research into the correct date of the Creation of the world.⁵⁵

⁵⁰ Sigebert of Gembloux, *Liber decennalis*, p. 187: 'Hoc quaquā terrarum tritum est, hoc quaquā scripturarum molitum est. Apud omnes cycli Dyoniisii est auctorizatus, sed ut dignius adhuc sit auctorizandus, annus dominice incarnationis in melius esset transmutandus.'

⁵¹ Sigebert of Gembloux, *Liber decennalis*, p. 187: 'Sed profer illam eius, quam promittis, prefationem, si forte inspecta eius intentione aliquam consequamur ambiguitatis nostre absolutionem.'

⁵² Sigebert of Gembloux, *Liber decennalis*, pp. 187–89 (1:26): 'DISCIPULUS: Quia longum est eam hic inserere, particulam eius sufficit intexere. "Papa, inquit, Theophilus, C annorum cursum Theodosio seniori principi dedicans [. . .] et ideo post expletionem XCV annorum cum harum rerum diligens ad exordium redire voluerit, non ad quintum cyclum sancti Cirilli, quem nobis necessarium proposuimus, sed ad nostrum primum vigilanter excurrat; et ordine, quo diximus, per eos, qui firmum cursum retinent, eorum progressum, qui videntur titubare, sutentet.'" See also Dionysius Exiguus, *Epistola ad Petronium*, pp. 63–64.

⁵³ Sigebert of Gembloux, *Liber decennalis*, pp. 189–90 (1:30): 'MAGISTER: Ecce, Dionisii attendi intentionem, sed non multam questionis nostre accepi solutionem. Hoc enim cum intendisse video, ut mutatus Cyrillum, qui cyclum quinque cyclorum, scilicet XCV annorum, scripsit, incipiens ab anno Dyocliciani CLIIIo eumque terminavit in anno eiusdem principis CCXLVIIo, statim post cyclum Cyrilli, ab anno scilicet Dioclitiani CCXLVIIIo, et ipse ordiretur suum magnum annum annorum DXXXII, compactum ex alterutra multiplicatione concurrentium et epactarum, ipsumque cyclum se annis Domini pretitulaturum promittit, nec tamen aliquem certum annum ibi proponit.'

⁵⁴ Sigebert of Gembloux, *Liber decennalis*, p. 190: 'Recte ergo necne cyclum suum orditus fuerit, recte necne annos imperatorum cum annis Domini composuerit.'

⁵⁵ Sigebert of Gembloux, *Liber decennalis*, p. 190: 'utrum etiam in ipsis imperatorum annis falsus sit, interim differendum erit, donec facta collatione annorum Domini et annorum ab origine mundi, ex sententia lectorum appendetur libra iudicii'.

Based on the final sentence in the extended passage from Dionysius's letter, the student poses a new question, namely why Dionysius had placed the last nineteen-year cycle of pseudo-Cyril at the beginning of his Easter table.⁵⁶ He adds the not illogical suggestion that the last six years of this nineteen-year cycle were still in effect at the moment Dionysius composed his Easter table.⁵⁷ His master dismisses this hypothesis, however, and next hazards a 'secret reading' of Dionysius's words.⁵⁸ According to that same concluding sentence, Dionysius had warned his readers that, once his own Easter table had run out, he could not return to the last nineteen-year cycle of pseudo-Cyril (513–31), but rather to the first nineteen-year cycle of his own Easter table (532–50). It was possible that Dionysius had meant by this that once his Easter table had run out, one should return to his own first nineteen-year cycle for all chronological parameters, with the exception of the Incarnation era. For that one had to return to the last nineteen-year cycle of pseudo-Cyril, because the year 532 had in fact begun there.⁵⁹ With this Sigebert proposes, then, a shift of nineteen years with respect to Dionysius's Incarnation era (AD 513 = 532 VA).⁶⁰

Despite the imaginary character of this reasoning, the master puts forward that in this case Dionysius had come much closer to the truth.⁶¹ If he had moved Christ's date of Incarnation from the second year of this last nineteen-year cycle of pseudo-Cyril (515/532 = 19 BC) to the last year of the penultimate nineteen-year cycle of pseudo-Cyril (513/532 = 21 BC), then there simply would not have

⁵⁶ Sigebert of Gembloux, *Liber decennalis*, p. 190 (1:31): 'DISCIPULUS: Interim illud velim doceri, quare dicat Dyonisius se prefigere operi suo ultimum cyclum Cirilli eumque necessarium fore suo operi. Hoc necessarium nec ex verbis eius ediscere nec per me possum conicere.'

⁵⁷ Sigebert of Gembloux, *Liber decennalis*, p. 190: 'An quia sex anni cycli illius restabant eo anno, quo hec scribebat?'

⁵⁸ Sigebert of Gembloux, *Liber decennalis*, p. 190 (1:32): 'MAGISTER: Quid ad rem, quo anno scripserit, dummodo pateat, quo anno magnum suum annum inceperit? Non possum te docere, quod nec ex verbis eius ediscere nec per me possum conicere. Nisi forte per hoc nos subaudire voluit, quod ipse aperte dicere noluit.'

⁵⁹ Sigebert of Gembloux, *Liber decennalis*, p. 190: 'Ac si diceret: "Cum aliquid de compoti ratione volueritis addiscere, non ad quintum cyclum Cyrilli operi meo prefixum, sed ad mei operis primum cyclum recurrite. Cum autem annorum Domini summam volueritis colligere, ad quintum cyclum Cyrilli recurrite, quia ibi DXXXIIum annum Domini scio rite occurrere.'"

⁶⁰ See also Sigebert of Gembloux, *Liber decennalis*, 2:19.

⁶¹ Sigebert of Gembloux, *Liber decennalis*, p. 190 (1:33): 'Et utinam hec intendisset, utinam ibi operis sui [initium] posuisset, tunc enim non longe a vero deviasset.'

been a chronological problem at all.⁶² The corresponding date of Christ's Passion (13/532 = AD 12) would then comply completely with the chronological demands of the Latin tradition, namely that Christ had died on Friday 25 March (luna xv) and was resurrected on Sunday 27 March (luna xvii).⁶³ With this reasoning Sigebert for the first time made his preference for the Latin tradition explicit. The narrow slight of two years between Dionysius (19 BC) and the Latin tradition (21 BC) could also be explained, according to the master. Contrary to more authoritative authors, Dionysius maintained that Christ had died in his thirty-fourth year.⁶⁴ Dionysius never made any such statement himself, however. Sigebert probably borrowed this information from Bede's *De temporum ratione*.⁶⁵

Having exposed Dionysius's error, the student wants to go in search of the 'real' date of Christ's Passion.⁶⁶ The master, however, once again replies that such a study is reserved only for a limited number of authoritative scholars and not for just any inquisitive soul.⁶⁷ These strict limitations had been put in place, according to Augustine, to prevent any given individual from accusing respected scholars in order to gain fame and glory for himself.⁶⁸ In other words, the master chooses the

⁶² Sigebert of Gembloux, *Liber decennalis*, p. 191: 'Ibi enim opere suo iniciado, si nativitatem Christi non in secundo operis sui anno, sed uno vel duobus ante initium sui operis, scilicet in ultimo vel penultimo quarti cycli a Cyrillo compositi anno posuisset, et se omni errore et nos multo labore absolvisset.'

⁶³ Sigebert of Gembloux, *Liber decennalis*, p. 191: 'Tunc enim XXXIIIus vel XXXIIIus etatis Iesu annus diem passionis eius rite adduceret in VIIIo kal. Aprilis et diem resurrectionis in VIo kal. Aprilis.'

⁶⁴ Sigebert of Gembloux, *Liber decennalis*, p. 191: 'Duos annos indeterminate ideo posui, quia et in hoc Dionysius a quorundam maiorum vestigiis deviavit, quod Iesum etatis sue anno XXXIIIo passum scribit, unde alias dicendum erit.' With his reference to more authoritative authors Sigebert was thinking of Eusebius of Caesarea and Jerome of Strido. For more, see Sigebert of Gembloux, *Liber decennalis*, 3:27.

⁶⁵ Beda Venerabilis, *De temporum ratione liber*, ch. 47.

⁶⁶ Sigebert of Gembloux, *Liber decennalis*, p. 191 (1:34): 'DISCIPULUS: Quia non multum nostra interest error Dionysii, vellem, si quo modo posset fieri, anfractus erroris eius michi insinuari et vestigia veritatis indagando ad rectam viam quantocumque labore arreperere.'

⁶⁷ Sigebert of Gembloux, *Liber decennalis*, p. 191 (1:35): 'MAGISTER: Hoc sane expediret, si esset, qui id investigare quiret. Hoc enim magnorum et doctorum virorum esset, quos vel scientie rectitudo dirigeret vel magnitudinis sue auctoritas defenderet. Nos, qui nullius momenti sumus, quae spe ad id aspirabimus?' See also Sigebert of Gembloux, *Liber decennalis*, 1:4.

⁶⁸ Sigebert of Gembloux, *Liber decennalis*, pp. 191–92: 'Et maxime quia cavendum est nobis, quod ait Augustinus: "Cum forte aliquid nos movet, quod nobis etsi cautius non attendentibus,

authoritative error before personal zeal to correct that error.⁶⁹ He finds a similar reasoning in the Wisdom of Jesus Sirach (Eccles. 20. 5).⁷⁰

The student does not let himself be fobbed off by such a defensive *auctoritas* argument and demands a satisfactory answer to his question.⁷¹ The master complies, on the condition that his student will accept responsibility for the endeavour.⁷² The curious student eagerly agrees to this condition, and in this way Sigebert legitimizes his search for the 'real' date of Christ's Passion.⁷³ After this dialogic trick of Sigebert's, the master embarks on his exposition.

He states that earlier authors had established an arbitrary starting point for their Easter tables, but that Dionysius Exiguus had begun his Easter table quite consciously in AD 532.⁷⁴ Because the student does not understand what his master means by this, the latter gives a couple of examples whereby the author had chosen the first year arbitrarily.⁷⁵ He first refers to the one-hundred-year Easter table of Theophilus of Alexandria, which began in the first regnal year of Theodosius I

certe tardius intelligentibus non probatum est, et, quid nobis videatur, contra conamur asserere, si hoc aliquanto securiore libertate dicamus, cavendum est, ne incidamus in suspicionem puerilis iactantie, quasi nostro nomini famam viros illustres accusando queramus." See also Augustine of Hippo, *Epistola LXXXII ad Hieronymum*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 33 (Paris, 1845), cols 276–91, 1:2.

⁶⁹ Sigebert of Gembloux, *Liber decennalis*, p. 192 (1:36): 'Itaque nobiscum habitemus et imperitiam nostram silendo tegamus et pluris habeamus catholicorum patrum negligentiam quam nostram obscuram diligentiam.'

⁷⁰ Sigebert of Gembloux, *Liber decennalis*, p. 192: 'Hinc ait Filius Syrach: "Est tacens, qui invenitur sapiens, et est odibilis procaax ad loquendum." Credo levius esse de aliqua re aliquem dubitare et salva fidei integritate etiam errare, quam vel suum scire arrogare vel alicui maiorum derogare.'

⁷¹ Sigebert of Gembloux, *Liber decennalis*, p. 192 (1:37): 'DISCIPULUS: Verba michi das et causando ambis, ne michi satisfacias. Immo mitte ambages et iam nunc incipe, si quid habes!'

⁷² Sigebert of Gembloux, *Liber decennalis*, p. 192 (1:38): 'MAGISTER: Faciam ut iubes, si quid peccavero, tibi volo imputes.'

⁷³ Sigebert of Gembloux, *Liber decennalis*, p. 192 (1:39): 'DISCIPULUS: Ut libet.'

⁷⁴ Sigebert of Gembloux, *Liber decennalis*, p. 192 (1:40): 'MAGISTER: Multi et ante et post Dionysium cyclos scripserunt et, quia nullam sibi extrinsecus necessitatem prefixerunt, nusquam operis sui intentionem impederunt. Ut enim qui posito centro circulum facere molitur, quantum vult potest contrahere vel augere ambitum, nisi aliquem extrinsecus, ubi coarceatur, prefigat sibi terminum, ita et isti cyclorum scriptores, qui intra sue intentionis se continuerunt ambitum, ubilibet vagandi tenuerunt libitum. Dionysius vero alia incedens via, quia extrinsecus prescripsit sibi necessitatem, abstulit sibi ubilibet magnum annum suum incipiendi libertatem.'

⁷⁵ Sigebert of Gembloux, *Liber decennalis*, p. 192 (1:41): 'DISCIPULUS: Minus capio, quod dicis.'

(380–479).⁷⁶ As his second example the master refers to Adalbold of Utrecht, who, like Olbert of Gembloux, had been a student of Heriger of Lobbes. Thanks to Sigebert we know that Adalbold was the author of the now-lost 532-year cycle in which the thirty-five possible Easter Sundays were indicated by means of letters of the alphabet.⁷⁷ From Sigebert's narrative it also appears, however, that he was familiar with other 532-year cycles. It is possible that this was the 532-year cycle of concurrents from the first book of Marianus's chronicle.⁷⁸ There is at any rate no evidence whatsoever that Sigebert also knew the *Laterculus posterior* by Abbo of Fleury, for the latter is mentioned in Sigebert's *De viris illustribus* only for his commentary on the *Calculus* by Victorius of Aquitaine.⁷⁹

The master next states that Dionysius Exiguus himself had committed a double error with his choice of AD 532 as his starting year. On the one hand, this Incarnation era did not coincide with the years of the world (AM); on the other hand this Incarnation era conflicted with the luni-solar functionality of a 532-year cycle, as was clearly manifested in the date of Christ's Passion (35/532).⁸⁰ According to the master the first error was caused by the second. The world had been created in the first year of a 532-year luni-solar cycle (AM 1 = 1/532), and if Dionysius had taken this into consideration then he would also have been able to avoid the chronological problem with respect to the date of Christ's Passion.⁸¹

⁷⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 192–93 (1:42): 'Et hoc intelligo. Intellige! Theophilus episcopus circulum C annorum scripsit et, quia preter paschalis varietatis rationem, quam hoc circulo ad plenum comprehendi putavit, nichil exterius assuit, libere ubi voluit incepit vel finivit.' On Theophilus's Easter table, see Declercq, *Anno Domini*, p. 76.

⁷⁷ Sigebert of Gembloux, *Liber decennalis*, p. 193: 'Alii etiam post Dionisium coacervando sibi concurrentes DXXXII annorum, ad exemplar Dionisii in brevi magnum concluderunt annum. Modernior omnium Adalboldus episcopus Vultraiectensis ante hos centum circiter annos excerptis sibi tantummodo literas alphabeti per DXXXII annos dominicis pasche diebus prefixas et a primo pascha usque ad ultimum pascha, per dies scilicet XXXV, prenotans XXXV annos, omnem varietatem temporis, que ex paschali varietate nascitur, posteris sine ambiguitate notandam reliquit. Hic et alii, qui cyclos scripserunt, nescio an aliquem calumpniandi locum reliquerunt.'

⁷⁸ Marianus Scottus, *Chronicon*, 1:7.

⁷⁹ Sigebert of Gembloux, *Catalogus de viris illustribus*, ch. 140.

⁸⁰ Sigebert of Gembloux, *Liber decennalis*, p. 193 (1:43): 'Porro Dionisius, qui, quantum ad rationem compoti, melius aliis hominibus scripsit, magnam ansam calumpnie scriptis suis inseruit, dum cum paschalis observantie varietate fixam annorum Domini summam e diverso prefixit, nec bene annos mundi cum annis Domini nec annos Domini cum paschalibus terminis composuit.'

⁸¹ Sigebert of Gembloux, *Liber decennalis*, p. 193: 'Quia enim magnum annum compingebat, quem utique non alias quam ab inicio mundi incipere constat, si collectis mundi annis eos per

The student is having more and more difficulty keeping up and therefore demands that his master support his hypothesis with evidence.⁸² The master agrees, but first wishes to pose a few preparatory questions that may be easily answered based on patristic texts, namely concerning the precise starting point of a day, the first day of Creation, the intercalation of a leap day, and the 532-year luni-solar cycle.⁸³ Although the Latin writer Sallust (d. 35/34 BC) had warned against the dangers of haste, the student finds the necessary permission to search for answers to difficult and ambitious questions of his master in Matthew (Matt. 7. 7).⁸⁴ In this case it is not the master, but rather the student who grants permission to continue the quest.⁸⁵

Because the master regards the chronological incongruity pertaining to the date of Christ's Passion as the consequence of the chronological problem pertaining to the date of Creation, he logically begins with a more deliberate scrutiny of the latter problem. He proceeds by looking for the one year in a 532-year luni-solar cycle that meets all chronological demands, namely that it was (1) the first year following a leap year; (2) a mean year followed by a second mean year and only then by an embolismic year; and finally (3) a year with paschal term 21 March (luna xiv).

DXXXII annos divisisset et quot magni anni ab inicio mundi usque ad Christi nativitatem transierint inspexisset, aptius credo annum nativitatis Christi prenotasset et discrepantiam temporis in passione eius vitasset.⁷

⁸² Sigebert of Gembloux, *Liber decennalis*, pp. 193–94 (1:44): 'DISCIPULUS: Nisi quod dicis elucidaveris, non ex fumo splendorem, sed ex splendore fumum dabis. Itaque quod cum minus fecisse reprehendis, opus est, ut tu facere coneris, ut si quid novi affers auribus, ipsis probari possis oculis.'

⁸³ Sigebert of Gembloux, *Liber decennalis*, p. 194 (1:45): 'MAGISTER: Faciam Deo et te iuvante. Sed cum multa prius querendo prelibanda sint, in primis querendum puto, quomodo accipiendus sit dies: a mane usque ad mane an a vespera usque ad vesperam, cum utrumque legamus, ut: "et factum est vespere et mane dies unus" et "a vespera usque ad vesperam celebrabitis sabbata vestras", ubi ponendus sit primus dies seculi, ubi accipiendus sit primus mundi annus, ubi inchoandus sit annus, ubi bissextus, ubi magnus annus et quid sit magnus annus et alia, que intercurrent. Hoc ex patrum scriptis cito et facile puto inveniri.' For the biblical citation, see Gen. 1. 5 and Lev. 23. 32.

⁸⁴ Sigebert of Gembloux, *Liber decennalis*, p. 194 (1:46): 'DISCIPULUS: Ut Salustius testatur, animo cupienti nichil unquam satis festinatur. Quod tu reris esse facile inventu, hoc ego vereor esse longe remotum a nostro intellectu. Quia tamen ille, qui dixit querite et invenietis, pulsate et aperietur vobis, erit vere in proximo fidelis, fac, quod polliceris, confirma, quod sentis, ex patrum dictis.' See also Crispus Caius Sallust, *Bellum Iugurthinum*, ed. by Catherine Vivanco, Lire en V.O., latin, 52 (Paris, 1991), 64:4.

⁸⁵ Sigebert of Gembloux, *Liber decennalis*, 1:38.

In the end they must conclude that not a single year met these requirements. After a long discussion they decide to adjust their criteria and to see whether the moon was created on 22 March (luna i).⁸⁶

Liber secundus

At the beginning of the second book the student wants to connect the question concerning the age of the moon at Creation to the other two issues at hand, namely the dates of Creation and of the Passion of Christ.⁸⁷ He acknowledges the need for supporting *auctoritates* and asks therefore that his master's theory be underpinned by appropriate authority.⁸⁸ The master, however, denies that he has built this argument on purely rational grounds, for he had always relied on God's guiding powers to lead him to the truth.⁸⁹ Following the student's subsequent and impatient reply, the master next proceeds to provide the necessary support for his theory.⁹⁰ Both the date of the Creation of the world according to the Hebrew verity and the date of Christ's Passion according to the gospel verity constitute two anchor points in the study. Using one anchor point, the other may be calculated, and vice versa.⁹¹

⁸⁶ Sigebert of Gembloux, *Liber decennalis*, 1:47–135.

⁸⁷ Sigebert of Gembloux, *Liber decennalis*, p. 226 (2:1): 'DISCIPULUS: In prima parte opusculi que ad lunam pertinent quesitis, prosequamur cetera, de quibus titillat nos molestia dubitandi, de annis scilicet mundi et dominice passionis.'

⁸⁸ Sigebert of Gembloux, *Liber decennalis*, p. 226: 'Ea nimirum talia esse experieris, super quibus secundum Domini sententiam aut ex verbis tuis iustificaberis aut ex verbis tuis condemnaberis. Superius dixisti, quod vere quidem dixisti, quod est coniecturale, non esse satis autorale, et decere, ut multum sit auctorale, quod debet esse exemplabile. Tu ergo, qui verisimilia connitiendo tali in loco primum seculi annum esse ponendum censes, vereor ne in ea re probando substes, de qua nullam divine vel humane scripture auctoritatem ostendere potes.' See also Matt. 12. 37 and Sigebert of Gembloux, *Liber decennalis*, 1:123.

⁸⁹ Sigebert of Gembloux, *Liber decennalis*, p. 226 (2:2): 'MAGISTER: Nolo credas me huc fortuito adductum casu vel voluntarie temeritatis ausu, immo divini auxilii ductu, et quod spero et opto, ipsius veritatis directum manu.'

⁹⁰ Sigebert of Gembloux, *Liber decennalis*, p. 226 (2:3): 'DISCIPULUS: Ede, quod mente concepisti!'

⁹¹ Sigebert of Gembloux, *Liber decennalis*, pp. 226–27 (2:4): 'MAGISTER: Ait scriptura: "Homini est preparare cor et Dei gubernare linguam." Si operis nostri intentionem recolis, hoc nos laborare videbis, ut per annos mundi invenire possimus annum dominice passionis secundum ewangelicam veritatem, itemque per annum dominice passionis annum primum mundi reperiamus secundum Ebraice scripture veritatem. He sunt due extremitates nostri operis, quia et in omnibus rebus minus quam due extremitates esse non possunt.'

As far as the date of Creation is concerned, he refers to Eusebius of Caesarea and the Venerable Bede, both of whom had calculated the date of Creation according to the Hebrew reckoning.⁹² For the first two *aetates* Eusebius had followed the Hebrew verity and counted 1950 years from Creation to the incarnation of Abraham.⁹³ Sigebert bases this on a still unknown interpolation in the chronicle of Eusebius and Jerome.⁹⁴ This sum differed by two years, however, from Bede's reckoning (1656 + 292 = 1948).⁹⁵ For the period from Abraham to the Birth of Christ, Eusebius counted a total of 2014 years.⁹⁶ According to this reckoning, then, Eusebius dated the Birth of Christ to AM 3964 (1950 + 2014 = 3964).⁹⁷ Because of this, Christ's date of Incarnation according to Eusebius deviated a total of twelve years from Bede's Hebrew Creation era and consequently shifted the date of Christ's Birth from 2/532 (AM 3952 = AD 1) to 14/532 (AM 3964 = AD 13).⁹⁸ The resulting date of His Passion did not conform, however, with the gospel data.⁹⁹ In AD 45 Easter Sunday fell on 25 April (luna xxi), and in AD 46 it fell on 10 April

⁹² Sigebert of Gembloux, *Liber decennalis*, p. 227 (2:5): 'Et multi quidem cronographi collegerunt annos mundi usque ad nativitatem Christi et inde quisque usque ad annos sue etatis. Inter hos nobis eminere videntur Eusebius episcopus Cesariensis et Beda Anglorum presbyter venerabilis. Et Eusebius quidem Hebraicam veritatem per omnia confitendo ei assentiri videtur, sed ad LXX translationem semper recurrens, eorum usitata et inoluta cunctis consuetudine aliquando retinetur. Beda vero sola Hebraice veritatis auctoritate se tuetur.'

⁹³ Sigebert of Gembloux, *Liber decennalis*, pp. 227–28 (2:6): 'Denique Eusebius cronica sua a nativitate Abrahe orditus, hec statim dicit: "Apud Hebreos usque ad nativitatem Abrahe computantur anni MDCCCCL. Ab adam enim usque diluvium habent annos I DCLVI et inde usque ad Abraham CCXCII, et ideo XLus iubeleus a nativitate Habrahe computatur." Hec Eusebius.'

⁹⁴ Von den Brincken, 'Kritik an Marianus Scottus', p. 236.

⁹⁵ Sigebert of Gembloux, *Liber decennalis*, p. 228: 'Sed nos duos annos illius summe deesse videmus.'

⁹⁶ Sigebert of Gembloux, *Liber decennalis*, p. 228: 'Denique, ubi ad Christi nativitatem venit, idem Eusebius prosequitur: "Omnes anni ab Habraham usque ad nativitatem Christi colliguntur II XIII." See also Eusebius and Jerome, *Chronicon*, Olymp. 194/3.

⁹⁷ Sigebert of Gembloux, *Liber decennalis*, p. 228: 'He due summe simul iuncte colligunt ab adam annos III DCCCCLXIII secundum Eusebium.'

⁹⁸ Sigebert of Gembloux, *Liber decennalis*, p. 228: 'Quorum annus ultimus, qui Christi nativitati ascribitur, in magno anno Dionisii secundum consequentiam paschalis rationis XIIIus primi cycli invenitur.'

⁹⁹ Sigebert of Gembloux, *Liber decennalis*, p. 228: 'Ab hoc anno annis etatis Iesu Christi supputatis, nec in XXXIIIo nec in XXXIIIo eius anno, in quorum utrolibet passus dicitur, invenio secundum fidem ewangelii consequentiam paschalis sollempnitatis.'

(luna xvii).¹⁰⁰ In the case of Bede's reckoning, too, the results were relatively negative. In AD 33 Easter Sunday fell on 5 April (luna xviii), and in AD 34 on 28 March (luna xxi).¹⁰¹

The master points out the chronological weaknesses of each one of these Creation eras and therefore looks for Christ's Passion in a proximate year that does meet the chronological requirements of the Gospel.¹⁰² In his search he finds the date of Christ's Passion according to the Latin tradition (AM 3992 = 13/532).¹⁰³ The corresponding date of Christ's Birth (AM 3960 = 513/532) falls exactly in between the Creation eras of Eusebius and Bede and is twenty-one years off compared to the date of Christ's Birth according to Dionysius (AM 1981 = 2/532).¹⁰⁴

¹⁰⁰ Sigebert of Gembloux, *Liber decennalis*, p. 228: 'Nam in XXXIIIo invenio terminum paschalem XIIIo kal. Maii, diem dominicum VIIo kal. Maii, et in XXXIIIo terminum paschalem VIIo idus Aprilis, diem dominicum IIIo idus Aprilis. Quod neutrum ewangelio convenire quis potest ambigere?'

¹⁰¹ Sigebert of Gembloux, *Liber decennalis*, p. 229 (2:7): 'At annorum, quos Beda ab adam usque ad Christum ponit, id est III DCCCCLII, ultimus annus, qui Christi nativitati ascribitur, in magno anno Dyonisii per consequentiam paschalis rationis secundus primi cycli invenitur. Item ab hoc anno annis etatis Iesu Christi supputatis, nec in XXXIIIo nec in XXXIIIo eius anno, in quorum utrolibet passus dicitur, invenio secundum fidem ewangelii consequentiam paschalis solempnitatis. Nam in XXXIIIo anno terminum paschalem invenio kal. Aprilis, diem dominicum nonas Aprilis, et in XXXIIIo terminum paschalem invenio XIIo kal. Aprilis, diem dominicum Vo kal. Aprilis. Quod quidem consequatur, superius propositum est a te, quando de errore Dyonisii agebatur.' See also Sigebert of Gembloux, *Liber decennalis*, 1:15.

¹⁰² Sigebert of Gembloux, *Liber decennalis*, p. 229 (2:8): 'Hoc a recta via distractus, bivio nullo utrobique patente, procedendi modo dum ut cancer retrocedendo nitor erepere periculo, non longe hinc recte vie vestigia apparere video.'

¹⁰³ Sigebert of Gembloux, *Liber decennalis*, p. 229: 'Quippe in XIIIo anno primi cycli decennovenalis in magno anno Dyonisii deprehendi consequentiam anni congruentem ewangelice veritati, scilicet terminum paschalem VIIIo kal. Aprilis in Va feria, passionem Christi VIIIo kal. Aprilis in VIa feria, resurrectionem VIo kal. Aprilis in die dominica.'

¹⁰⁴ Sigebert of Gembloux, *Liber decennalis*, p. 230 (2:9): 'Inde retrogradans et annos XXXIII etatis Iesu retronumerans, postposito ducatu Dyonisii, a quo non per omnia bene dirigebar, mecum solus gradiebar et inter Bedam et Eusebium me ingerens medium intra illas annorum summas, quas posuerant ab adam usque ad natum Christum, in anno ab adam trimillesimo nongentesimo sexagesimo, quo me induxerat inventus dominice passionis annus ewangelice fidei congruus, locavi et ego annum dominice nativitatis respondentem per omnia in consequentiam temporis ultimo anno illius cycli decennovenalis, qui est XXVIIus, id est penultimus, in magno anno Dyonisii, annis XXI distans ab illo anno, quo Dionysius annum suum magnum orditus ponit nativitatem Christi.'

Table 39

<i>x/532</i>	<i>AM</i>	<i>VA</i>	<i>AD</i>	
505/532	AM 3952	–	29 BC	° Christ ~ Bede
513/532	AM 3960	1 VA	21 BC	° Christ ~ Gospel
517/532	AM 3964	5 VA	17 BC	° Christ ~ Eusebius
2/532	AM 3981	22 VA	AD 1	° Christ ~ Dionysius
13/532	AM 3992	33 VA	AD 12	† Christ ~ Gospel
34/532	AM 4013	54 VA	AD 33	† Christ ~ Dionysius

The master has yet to connect the date of the Creation of the world (AM 1), however, to this theory. Just as brave Theseus had forged a way through a well-nigh endless labyrinth with the help of Ariadne's thread, so, too, he is searching for the date of Creation with the date of Christ's Birth as his only clue (513/532).¹⁰⁵ Finally, after many detours, he stumbles upon his goal, that is, in the 278th year of a 532-year luni-solar cycle (278/532).¹⁰⁶ The accompanying chronological parameters, namely concurrent 7 and epact 1, indeed confirm that the moon was created on the evening of Thursday 22 March (luna i), just as Sigebert had maintained at the end of Book 1.¹⁰⁷ This year constituted a chronological anchor in an otherwise unknown past.¹⁰⁸ Starting with Creation, he could now count seven 532-year cycles, twelve nineteen-year cycles, and eight years to the date of Christ's Birth (3724 + 228 + 8 = 3960).¹⁰⁹

¹⁰⁵ Sigebert of Gembloux, *Liber decennalis*, p. 230 (2:10): 'Hic vero horrescens pene desperare cogebat, quia quasi quendam multiformis dubitationis laberintum videre michi videbat. Sed memor illius Thesei, qui ceca filo vestigia rexit et sic mille fores, mille vias, mille ambages laberinti evasis, nebam et ego et convolvebam glomus multe cogitationis in animo meo et ausus me credere periculo, caput fili nodavi exterius in primo ostio, in anno scilicet dominice nativitatis, quem deprehenderam per annum dominice passionis, scilicet in anno mundi III DCCCCCLXo.'

¹⁰⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 230–31: 'Sic longo nimis tractu emenso per mille amfractus numerandi vix tandem ad imum interioris extremitatis aditum perveni et nescius in primum seculi annum, ut michi visum est, impegi, qui est in magno Dionisii anno quinti decimi cycli XIIus annus, habens concurrentes VII, epactas I, lunam XIIIam Aprilis in Ilo nonas Aprilis.'

¹⁰⁷ Sigebert of Gembloux, *Liber decennalis*, 1:123.

¹⁰⁸ Sigebert of Gembloux, *Liber decennalis*, p. 231: 'Hic quasi in extremo laberinti ostio altera extremitate fili nodata, ut haberem unde rursum dirigerem vestigia, unde veneram dubitando, illuc reducebar meditando.'

¹⁰⁹ Sigebert of Gembloux, *Liber decennalis*, p. 231 (2:11): 'Et quia iam via apparebat pluscule, gressus regebam meliuscule. Itaque summa annorum III DCCCCCLX in calculum deducta et per calcularis abaci regulam recte divisa, inveni VII magnos annos annorum DXXXII ab adam usque ad nativitatem Christi fuisse expletos et de VIIIo magno anno duodecim decennovenaes cyclos et insuper XIII cycli decennovennalis VIII annos.'

An additional thirty-two years were necessary to arrive at the date of Christ's Passion according to the Latin tradition ($3960 + 32 = 3992$).¹¹⁰

The master's chronological explanation is greeted, however, with a very sharp dismissal.¹¹¹ The student is especially annoyed by the vanity of this entirely new line of reasoning.¹¹² On the one hand he acknowledges that according to this theory the moon was indeed created as luna i on 22 March, by no coincidence the calendar day of the so-called *sedes epactarum*.¹¹³ At the same time he declares himself to be entirely in agreement with the fact that the date of Creation must have concurrent 7.¹¹⁴ And yet he observes that the combination of concurrent 7 and epact 1 occurs no fewer than four times in a 532-year luni-solar cycle, with the only difference being the position in a four-year leap-year period (G-G-G-L).¹¹⁵

Table 40

1	88/532	G-G-G-L
2	183/532	G-G-G-L
3	278/532	G-G-G-L
4	373/532	G-G-G-L

¹¹⁰ Sigebert of Gembloux, *Liber decennalis*, p. 231: 'Et inde in directum XXXIII annis etatis Iesu supputatis, reductus sum ad eundem, a quo numerare ceperam, congruentem ewangelio annum dominice passionis, qui est in magno anno Dionisii XIIIus annus primi cycli decennovennalis.'

¹¹¹ Sigebert of Gembloux, *Liber decennalis*, p. 231 (2:12): 'DISCIPULUS: Ante aut Ararim Parthus bibet aut Germania Tygrim, quam aliquis tibi hinc accomodet fidem!' See also Vergil, *Eclogae et Georgica*, ed. by Robert D. Williams, Classical Series (New York, 1985), 1:62.

¹¹² Sigebert of Gembloux, *Liber decennalis*, p. 231: 'Aures enim audientium quasi malleo tundes, quando huius novitatis vanitatem in medium profundes.'

¹¹³ Sigebert of Gembloux, *Liber decennalis*, pp. 231–32: 'Attamen satis patet, qua ratione huc adductus sis, scilicet quod luna, que XIIIa est Ilo nonas Aprilis, est prima XIo kal. Aprilis, ubi tu lunam primo Creationis sue ortu primam effulsisse pertinaciter contendis. Quod si tibi veritas consentiret, multum fateor conveniret, ut luna primo suo ortu apparens prima in XIo kal. Aprilis sedem ibi perpetuam fundaret epactis, quas primo seculi anno unam fuisse ostendis. Quid est enim convenientius quam ut matri numerorum unitati annuatim XI accrescentibus ipsa fieret origo epactis omnibus?' See also Isidore of Seville, *Etymologiae*, 3:3,1.

¹¹⁴ Sigebert of Gembloux, *Liber decennalis*, p. 232 (2:13): 'Nec hoc disconvenire puto, quod concurrentes VII primo seculi deputantur anno, qui ex plenitudine recurrentis in se ebdomade nati initium et limitem prescribant concurrentium etati.'

¹¹⁵ Sigebert of Gembloux, *Liber decennalis*, p. 232: 'Sed cum in magno anno plusquam semel septem concurrentes habeat ille annus, qui XIIIam lunam Aprilis in Ilo nonas Aprilis terminat, nescio utrum primo seculi anno VII concurrentes habere per omnia conveniat, cum eam convenientiam temporis, quam primis seculi annis aptandam credis, bisextus intercurrentis aliquando inveniri prohibeat.'

The master indeed points out this difference and repeats that the date of Creation (AM 1) must logically have been the first year of such a four-year leap-year period (G-G-G-L).¹¹⁶ Having heard this refutation of his first objection, the student now asks for a clearer explanation of the calculation of the new Creation era (AM 3960).¹¹⁷ The master does not appreciate his student's distrust, but nevertheless agrees to his request.¹¹⁸ He makes a sequence of eight successive 532-year cycles and dates the year of Christ's Birth according to Bede's Hebrew Creation era in the 228th year of the eighth 532-year cycle ($7 \times 532 + 228 = \text{AM } 3952$).¹¹⁹

The date of Christ's Birth according to the gospel verity (AM 3960) falls, however, exactly eight years later, namely in the forty-second regnal year of Emperor Augustus, in the 752nd year since the founding of Rome, and in the second year of the 194th Olympiad (194/2).¹²⁰ The Passion of Christ according to the Latin

¹¹⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 232–33 (2:14): 'MAGISTER: Quamquam verbis meis inpatienter intercurras, quia tamen prudenter interrogas, hoc volo pro experto teneas, quia cum in magno anno qualiter talis annus VII concurrentes habeat, nusquam preter hunc locum ita primo seculi anno concordat, ut totum absolutum habeat, scilicet ut primus annus cum plenitudine dierum CCCLXV habeat quadrantem, secundus semissem, tercius dodrantem, quartus ex integro XXIII horarum asse diem habeat bissextilem.' See also Sigebert of Gembloux, *Liber decennalis*, 1:59.

¹¹⁷ Sigebert of Gembloux, *Liber decennalis*, p. 233 (2:15): 'DISCIPULUS: Nunc propositam de annorum summa rationem volo prosequaris. Et quia disciplina calcularis abaci non bene, nota est omnibus, hoc ipsum explana quam potes apertius, ut satisfiat ipsis quoque idiotis et simplicibus.'

¹¹⁸ Sigebert of Gembloux, *Liber decennalis*, p. 233 (2:16): 'MAGISTER: Quamvis contradicendo michi relucteris, quamvis ab incepto discredendo me dehorteris, morigerabor etiam invitus. Totus ergo annorum ordo ab adam usque ad Christum digeratur seriatim, ut vel sic pateat ipsa ratio comprehensa annuatim.'

¹¹⁹ Sigebert of Gembloux, *Liber decennalis*, pp. 233–34 (2:17): 'Primus magnus annus ab primo seculi anno initiatus, qui habet cyclos decennovennales XXVIII, finitur anno seculi et Ade DXXXIIo. Secundus magnus annus finitur anno vite Noe VIIIo, expletis annis I LXIII a mundi initio. Tercius magnus annus finitur anno Sem XXXVIIIo, Noe vero anno DXLo, expletis annis I DXCVI a mundi initio. Quartus magnus annus finitur anno Ysaac LXXXo, expletis annis II CXXVIII a mundi initio. Quintus magnus annus finitur anno XXIIo Debore cum Barac Hebreos iudicantis, expletis annis II DCLX a mundi initio. Sextus magnus annus finitur Ozie regis Iuda anno LIIo, olimpiadis secunde anno secundo, quo anno Remus et Romulus in Italia nati fuisse dicuntur, expletis annis III CXCI a mundi initio. Septimus magnus annus finitur anno CCCIIo relaxate a Dario Iudaice captivitatis, annis III DCCXXIII ab initio mundi expletis. Octavi magni anni cyclos decennovennales XII addes et in ultimo eorum anno annos ab initio mundi III DCCCLII invenies, ubi Beda annum dominice nativitatis ponit.' See also Judg. 5. 1–2.

¹²⁰ Sigebert of Gembloux, *Liber decennalis*, p. 234 (2:18): 'Quod quia non procedit, nam hic posita Christi nativitate annus dominice passionis a veritate ewangelica dissentit, usque ad octavum

tradition (AM 3992) fell consequently in the eighteenth regnal year of Tiberius, more specifically on Friday 25 March (luna xv).¹²¹ Based on the fact that the date of the Creation of the world must necessarily have coincided with the first year of a 532-year cycle (AM 1 = 1/532), the master concludes that the Birth of Christ must be dated to 236/532 (21 BC = 1 VA), exactly twenty-one years earlier than Christ's date of Incarnation according to Dionysius (AD 1 = 22 VA).¹²² In fact this chronological correction differed only two years from the correction that Sigebert had proposed in Book 1 based on an implicit reading of Dionysius's letter to Petronius (AD 513 = 532 VA).¹²³

Table 41

AM	532-year cycle (~Dionysius)	AD (~Dionysius)	VA (~Sigebert)	532-year cycle (~Sigebert)	
AM 1	278/532	3980 BC	3959 BC	1/532	° Creation
AM 3960	513/532	21 BC	1 VA	236/532	° Christ ~ Sigebert
AM 3981	2/532	AD 1	22 VA	257/532	° Christ ~ Dionysius
AM 3992	13/532	AD 12	33 VA	268/532	† Christ ~ Sigebert
AM 4013	34/532	AD 33	54 VA	289/532	† Christ ~ Dionysius

annum XIIIli cycli procede ibique annos ab initio mundi IIĪ DCCCCCLX inveniens, ibi Christi nativitatem positam attendes anno cesaris Octaviani XLIIo, anno ab urbe condita DCCLIIo, olimpiadis CXCIIIe anno Ilo.'

¹²¹ Sigebert of Gembloux, *Liber decennalis*, pp. 234–35: 'et annis XXXIII etatis Christi additis ibi annum passionis eius per omnia evangelice veritati consonum videbis, qui est annus imperii Tyberii cesaris XVIIIus, ab initio mundi trimillesimus DCCCCXCIIus, habens terminum paschalem IXo kal. Aprilis in Va feria, VIIlum kal. Aprilis, quando Christus passus est, in VIa feria, VIum kal. Aprilis, quando resurrexit, die dominica'.

¹²² Sigebert of Gembloux, *Liber decennalis*, p. 235 (2:19): 'Ecce habes annum dominice passionis qualem querebas secundum ewangelicam veritatem et ab illo deductus es ad primum mundi annum retrogradando per numerum annorum, digestum ab adam usque ad Christum secundum Hebraice scripture fidem, que sola pre cunctis scripturis maiorem meruit auctoritatem tum propter eminentiam veritatis tum propter figuram ewangelice perfectionis. Ecce vides Christum non in secundo anno magni anni natum, ut scribit Dyoniisius, sed in CCXXXVIo anno octavi magni anni, scilicet in VIIIo XIIIli cycli anno, qui annus concordat in ratione paschalis compoti ultimo anno decennovennalis cycli, qui cyclus est XXVIIus in magno anno Dionisii, et distat annis XXI ab illo anno, quo Christi nativitatem ponit Dionisius.'

¹²³ Sigebert of Gembloux, *Liber decennalis*, p. 235: 'Porro a CCXLVIIIo Dioclitiani anno, quo se orditurum cyclum suum promittit Dionisius, distat annis tantum duobus, et post illum annum anno nati Christi concordem statim initiatur quintus decennovennalis cyclus Cyrilli, quem Dyoniisius operi suo necessarium duxit ideoque illum suo magno anno preponendum censuit.' See also Sigebert of Gembloux, *Liber decennalis*, 1:32.

The date of Christ's Birth consequently no longer fell in the second year of a 532-year cycle ($2/532 = \text{AD } 1$), but rather in the 513th year of the preceding 532-year cycle ($513/532 = 1 \text{ VA}$).¹²⁴ If Dionysius Exiguus had also designated this last year as the date of Christ's Birth, then there would have been no need for a chronological correction at all.¹²⁵ The dates of Christ's Birth and Passion, however, had to satisfy the infallible laws of chronology as well as the irrefutable truth of the Gospel.¹²⁶ The margin of error of Dionysius's era was consequently twenty-one years.¹²⁷ The small correction to the Hebrew Creation era meant, moreover, that the date of Christ's Birth ($\text{AM } 3960 = 513/532$) was connected in a chronologically sound way with the date of the Creation of the world ($\text{AM } 1 = 278/532$).¹²⁸

The student points out, however, that this last argument contains a genuine contradiction. On the one hand his master had considered Eusebius and Bede to be reliable guides in his quest for the date of the Creation of the world, but on the other hand he had not completely followed both of these *auctoritates*.¹²⁹ The

¹²⁴ Sigebert of Gembloux, *Liber decennalis*, pp. 235–36: 'Inspecto ergo annorum tenore ab adam usque ad natum Christum seriatim digesto, videbis profecto CCXLVIIIum [corr. CCXLVIIIum] annum a Dioclitiano concurrere quidem DXXXIIIo nati Christi anno, non tamen in secundo primi cycli anno secundum Dyonisium, immo in ultimo anno quarti cycli Cyrilli.'

¹²⁵ Sigebert of Gembloux, *Liber decennalis*, p. 236 (2:20): 'Ecce vides, quod superius proposui, quia si Dyonysius Christi nativitatem inchoasset in ultimo anno quarti cycli a Cyrillo compositi, quem statim sequitur quintus Cyrilli cyclus, quem voluit ipse Dyonysius operi suo antescribi, et se omni errore et nos multo absolvisset labore. Ita enim veritati evangelice in anno dominice passionis concordasset, ita annos mundi cum annis Christi bene composuisset, ita annos imperatorum ad se usque bene deductos bene cum annis Christi disposuisset, postremo nullam ansam calumpniandi opus suum reliquisset, immo nullam causam errandi in annis Christi posteris dedisset.'

¹²⁶ Sigebert of Gembloux, *Liber decennalis*, p. 236: 'Quia enim impossibile est rationem paschalis compoti in aliquo vacillare, necesse est secundum fidem veritatis ita nativitatem Christi locare, ut in anno dominice passionis nullo modo a veritate evangelii possimus discordare.'

¹²⁷ Sigebert of Gembloux, *Liber decennalis*, p. 236 (2:21): 'Iam plane te vidisse puto, qualiter Dyonysius magnum annum suum, quem a nativitate Christi ordiri voluit, non recte incepit ipsosque annos Christi cum annis mundi inconsiderate contulerit. Et quia nativitatem Christi, quantum ad rationem compoti, posuit XXI annis tardius quam debuit, in anno dominice passionis evangelio concordare non potuit.'

¹²⁸ Sigebert of Gembloux, *Liber decennalis*, p. 236: 'Plane, inquam, videre potes, quia si in annis mundi bene teneatur Hebraica veritas, nec in annis Christi ab evangelii veritate nos discordare aliqua faciat falsitas.'

¹²⁹ Sigebert of Gembloux, *Liber decennalis*, p. 237 (2:22): 'DISCIPULUS: Multum tibi ipsi contrarius esse videris, qui, cum Eusebium et Bedam duces itineris tibi ad sequendam Hebraicam

master explains this departure as the result of a difference of intention. Both Eusebius and Bede had never intended to create a chronological connection between the date of the Creation of the world and the date of Christ's Birth.¹³⁰ He therefore denies that either of these two authors had gone against the Hebrew verity, but simply observes that the respective results were ultimately twelve years apart (AM 3964 and AM 3952).¹³¹

The master does not wish to pursue this remarkable difference, but he does want to explain the eight extra years of his corrected Creation era with respect to Bede's Hebrew Creation era (AM 3960 instead of AM 3952).¹³² The master had counted 597 years in the fifth *aetas*, whereas Bede had counted only 589 years.¹³³ From Creation (AM 1) to the thirty-second regnal year of Artaxerxes (AM 3520) he remained completely faithful to the Hebrew verity, but for the later period up to Christ's Passion the master based his calculation on the seventy weeks of the prophet Daniel (Dan. 9. 22–27).¹³⁴ The problem with this was, however, that these

veritatem elegeris, ad finem vie tenendum eos non sequeris. Volo ergo, ut insinues, cur ab eorum vestigiis exorbites.' See also Sigebert of Gembloux, *Liber decennalis*, 2:5–6.

¹³⁰ Sigebert of Gembloux, *Liber decennalis*, p. 237 (2:23): 'MAGISTER: Omnis actio ad propriam spectat intentionem et omnis ratio ad proprium dirigitur finem. Et Eusebius et Beda seriem temporum persecuti sunt ab adam usque ad nativitatem Christi, sed neuter eorum hoc intendit, ut ostenderet, qualis consequentia paschalis compoti fuerit vel in nativitate vel in passione Christi.'

¹³¹ Sigebert of Gembloux, *Liber decennalis*, p. 237: 'Et Eusebium dixi summam annorum ab adam usque ad Christum natum secundum Ebraicam quidem veritatem recte ostendisse, sed in scriptis suis ad inolitam cunctis LXX auctoritatem sepe recurrisset, Bedam vero regia via incedentem nec ad dexteram nec ad sinistram ab Hebraica veritate declinasse. Inter eos tamen de annis ab adam usque ad Christum hec tantum discrepantia intercurrit, quod Eusebius XII annos plusquam Beda ponit.'

¹³² Sigebert of Gembloux, *Liber decennalis*, p. 237: 'Unde hii XII anni extra Hebraicam veritatem habundent Eusebio, dicere supersedeo, ne longiuscula te fastidiat oratio. At unde michi VIII anni plusquam Bede, paucis adverte!'

¹³³ Sigebert of Gembloux, *Liber decennalis*, pp. 237–38 (2:24): 'Bede vestigiis inhesi in numerandis annis ab adam usque ad annum XXXIIum Artaxersis regis Persarum, ad quem usque annum Hebraica hystoria pertingit, qui est annus mundi III DXXus. Posui enim in prima etate, que incipit ab adam, annos I DCLVI, in secunda etate, que incipit a Noe, annos CCXCII, in tertia etate, que incipit ab Habraham, annos DCCCCXLII, in quarta etate, que incipit a David, annos CCCCLXXIII, in quinta etate, que incipit a captivitate Iuda, in qua ponit Beda annos DLXXXIX, ego adiciens VIII annos posui annos DXCVII. Hoc tantum inter me et Bedam dissonat.'

¹³⁴ Sigebert of Gembloux, *Liber decennalis*, p. 238 (2:25): 'Et hoc dicendum est, cur vel in hoc inter nos disconveniat. Ab adam usque ad XXXIIum annum Artaxersis regis, ad quem usque dixi scripturam Hebraicam pertingere, in nullo penitus me credo ab Hebraica veritate deviasse, ab inde

seventy weeks could only be converted to years based on pagan sources.¹³⁵ Moreover these pagan sources contradicted one another on many points, by which it became possible to insert eight extra years into the fifth *aetas*.¹³⁶ The master thereupon admits that he could not clearly discern these eight extra years, but the contradictory source material now provided him with enough leeway to link chronologically the Hebrew Creation era with the date of Christ's Passion according to the Latin tradition (AM 3992 = 13/532).¹³⁷ As a further piece of evidence he adds that such differences appear not just in pagan sources, but in Christian works as well.¹³⁸ With this Sigebert was probably referring to the difference between Eusebius (AM 3964) and Bede (AM 3952) in following the Hebrew verity.

The student acknowledges the importance of shoring up the chronographical uncertainties of the period following Artaxerxes with the authority of Holy Scripture.¹³⁹ He wonders, however, why the apparent error in Dionysius's era was not corrected by Bede himself.¹⁴⁰ To this new question the master responds that Bede and other scholars, too, had indeed observed this error, but that at the same time they were bound to respect the tradition of not contesting such a practice (*usus*) openly.¹⁴¹ In support of this he refers to the famous ironic comment in

vero usque ad passionem Christi secutus sum annos, quos Daniel propheta ex ore angeli didicit in LXX ebdomadibus fuisse abbreviatos.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3529).

¹³⁵ Sigebert of Gembloux, *Liber decennalis*, p. 238: 'Qui anni quidem secundum angelicam institutionem supputantur, sed ex gentilium hystoriis colliguntur.'

¹³⁶ Sigebert of Gembloux, *Liber decennalis*, p. 238: 'In his hystoriis, quia eas in numero annorum variare inveni, illos VIII annos sparsim collegi, quos in quinta etate numero Bede superaddidi.'

¹³⁷ Sigebert of Gembloux, *Liber decennalis*, p. 238: 'Quos etsi non invenissem, eos saltem de excursibus mensium et dierum per tot annos excrevisse crederem, ut in anno passionis dominice solidet rei veritas ewangelii fidem.'

¹³⁸ Sigebert of Gembloux, *Liber decennalis*, p. 238: 'Nec mirum, si in libris gentilium varietas annorum subest, que nec in divinis libris deest.'

¹³⁹ Sigebert of Gembloux, *Liber decennalis*, p. 238 (2:26): 'DISCIPULUS: Magnum revera est et delectabile omnes annos rerum gestarum ex divinis scripturis asserere et, ubi deest auctoritas Hebraice hystorie, statim subsequi testimonium doctrine ewangelice.'

¹⁴⁰ Sigebert of Gembloux, *Liber decennalis*, p. 238: 'Sed quia res tam grandis et tam utilis non est compendiose tractanda, suo loco est reservanda. Prosequamur instantia! Talis error Dyonisii numquid Bedam vel alios doctores latere potuit?'

¹⁴¹ Sigebert of Gembloux, *Liber decennalis*, p. 239 (2:27): 'MAGISTER: Nec Bedam nec alios doctores hic error latuit, sed usus, quem penes arbitrium est et ius et norma loquendi, post Dyonisium apud omnes prevaluit.'

Bede's *De temporum ratione*, in which the Dionysian era is implicitly yet clearly denounced.¹⁴² Heriger of Lobbes, too, had studied this matter, albeit not with the intention of linking the date of Christ's Passion chronologically to the date of the Creation of the world.¹⁴³ Despite his reference to Heriger's *Epistola ad Hugonem*, Sigebert leaves his preference for the Greek tradition unspoken. It is moreover striking that Sigebert makes no mention here of Marianus Scottus, who did forge a chronological link between the date of Creation and the Birth of Christ (AM 4183 = 22 BC = 1 VA).¹⁴⁴

The student's reaction is predictable. He wonders why his own master now controverts the age-old custom of not contesting erroneous traditions openly.¹⁴⁵ By shifting the starting point of a nineteen-year cycle he had vainly attempted to change a long, deep-seated tradition.¹⁴⁶ The student, however, must put this change in the right context.¹⁴⁷ Its goal was after all to link chronologically the date of the Creation of the world according to the Hebrew verity (AM 1 = 1/532) and the date of Christ's Passion according to the gospel verity (AM 3992 = 268/532).¹⁴⁸ The

¹⁴² Sigebert of Gembloux, *Liber decennalis*, p. 239: 'Beda enim, ut in libro eius De temporibus vides patenter, errorem Dyonisii deprehendit sagaciter et reprehendit veraciter, et quamvis in sententiam Dyonisii pedibus ire videatur, ipsum, quem sequitur, non recte ire testatur.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

¹⁴³ Sigebert of Gembloux, *Liber decennalis*, p. 239: 'Herigerus quoque abbas, vir multe scientie et reverentie, alique doctores super hoc errore Dyonisii etiam scriptis disputavere, sed nulla ad hoc adducti sunt intentione, ut vel causam erroris ostenderent vel tenorem annorum ad veritatis lineam retorquerent, non quia non poterant, sed quia alias intentionem suam dirigebant.'

¹⁴⁴ Sigebert knew the chronicle of Marianus Scottus and even explicitly referred to it: Sigebert of Gembloux, *Liber decennalis*, 3:7.

¹⁴⁵ Sigebert of Gembloux, *Liber decennalis*, p. 239 (2:28): 'DISCIPULUS: Iam nunc a te est expostulandum, cur contra morem ecclesiasticum et usum tantis retro seculis tritum volueris aliter cyclum decennovennalem incipere et ordinem ogdoadis et endecadis transponere.'

¹⁴⁶ Sigebert of Gembloux, *Liber decennalis*, p. 239: 'De qua re etiam si aliquid dignum dictu diceris, tamen contra torrentem brachia tendes, si contra inveteratum usum aliquid moliri labores.' See also Sigebert of Gembloux, *Liber decennalis*, 2:19.

¹⁴⁷ Sigebert of Gembloux, *Liber decennalis*, p. 239 (2:29): 'MAGISTER: Inordinate hoc queris.'

¹⁴⁸ Sigebert of Gembloux, *Liber decennalis*, pp. 239–40: 'Quia enim per annos mundi annum dominice passionis invenimus secundum ewangelii veritatem, ab ipso anno passionis retrogradantes debebamus querere etiam primum mundi annum secundum Hebraicam veritatem. Per hoc enim ordinatius et apertius puto posse intelligi, quod expostulas de transmutatione decennovennalis cycli.'

student acknowledges that he had lost sight of the main goal of the search, and subsequently asks his master to continue his narrative.¹⁴⁹

The master now returns to a 532-year luni-solar cycle and dates Christ's Passion and Incarnation to AM 3992 (13/532) and AM 3960 (513/532), respectively.¹⁵⁰ The master begins at Christ's Birth and counts back to the date of the Creation of the world by means of successive 532-year cycles. Given that, as the starting point of this reckoning, the Birth of Christ was set at the last year of a nineteen-year cycle ($1/532 = 19/19$), the last year of the first and all subsequent 532-year cycles falls logically in the first year of a nineteen-year cycle ($532/532 = 1/19$).¹⁵¹ Next the master provides the ending points of all 532-year cycles from Christ's Birth to the date of the Creation of the world (AM 3429, AM 2897, AM 2365, AM 1833, AM 1301, and AM 769). He consequently concludes that the seventh and last complete 532-year cycle ended in AM 237 ($=532/532$).¹⁵² The remaining years were divided into twelve nineteen-year cycles and eight extra years ($12 \times 19 + 8 = 236$), whereby

¹⁴⁹ Sigebert of Gembloux, *Liber decennalis*, p. 240 (2:30): 'DISCIPULUS: Bene me ad querendum dirigis, quia et hoc erat de proposito nostre intentionis. Perge!'

¹⁵⁰ Sigebert of Gembloux, *Liber decennalis*, p. 240 (2:31): 'MAGISTER: Cum passio dominica secundum fidem ewangelii bene accipiat in anno mundi III DCCCCXCIIo, qui annus habet concurrentes V cum bissexto, epactas XII, versum paschalis termini Novene kalende notantur septenis, diem dominicum resurrectionis VIo kal. Aprilis, ab hoc anno numeratis retrogradando XXXIII etatis Iesu annis invenietur nativitas eius, ut supra dixi, in anno mundi trimillesimo non-gentesimo sexagesimo, isque annus est ultimus cycli decennovennalis secundum Dyionisium, habens concurrentes VII cum bissexto, epactas XVIII, versum paschalis termini Quindene constant tribus adeptis, diem pasche dominicum Xo kal. Maii, porro nativitatem eius in diem dominicum provenisse ostendunt regulares et V concurrentes superioris anni.' See also Sigebert of Gembloux, *Liber decennalis*, 2:18.

¹⁵¹ Sigebert of Gembloux, *Liber decennalis*, pp. 240–41: 'Quia ab hoc anno nativitatis, qui est ultimus cycli decennovennalis, VII magnos annos et quod de octavo anno excurrit usque ad Adam numerare sursum versus adoriemur, omnes hi magni anni in primo anno cycli decennovennalis finientur, qui anni singuli XXVIII cyclis decennovennalibus terminantur.'

¹⁵² Sigebert of Gembloux, *Liber decennalis*, p. 241 (2:32): 'Primus magnus annus a Christo nato initiatus finitur anno VIIIo Cambisis regis Persarum, anno scilicet mundi trimillesimo quadringentesimo XX none. Secundus magnus annus finitur anno David regis septimo, anno scilicet mundi bimillesimo octingentesimo nonagesimo Septimo. Tercius magnus annus finitur anno Amram patris Moysi LXIo, anno scilicet mundi bimillesimo trecentesimo sexagesimo Vo. Quartus magnus annus finitur anno Noe DCCLXXVIIo, anno scilicet mundi millesimo octingentesimo XXXIIIo. Quintus magnus annus finitur anno Noe ducentesimo quadragesimo Vo, anno scilicet mundi millesimo trecentesimo primo. Sextus magnus annus finitur anno mundi et Ade septingentesimo sexagesimo none. Septimus magnus annus finitur anno mundi et Ade ducentesimo XXXVIIo.'

according to this reverse reckoning the date of the Creation of the world was found in the 236th year of the eighth 532-year cycle (AM 1 = 236/532).¹⁵³ But because the date of the Creation of the world had of necessity to coincide with the first year of a 532-year luni-solar cycle (AM 1 = 1/532), the calculation just performed confirmed from a reverse perspective that Christ's date of Incarnation had to be set in the 236th year of the eighth 532-year cycle (AM 3960 = 236/532).¹⁵⁴

The student is not convinced, however, by this new series of numbers. On the one hand he acknowledges the rational validity of these calculations, but on the other hand it remains unacceptable to go against the *auctoritas* of the Latin Church Fathers.¹⁵⁵ He therefore also praises the Venerable Bede, who in his Hebrew Creation era (AM 3952) had left untouched the existing structure of the nineteen-year cycles.¹⁵⁶ His master has no such praise for Bede's Hebrew Creation era, because the gospel verity was made subordinate to an existing yet erroneous chronological framework.¹⁵⁷

¹⁵³ Sigebert of Gembloux, *Liber decennalis*, pp. 241–42: 'Quod excurrit de magno VIIIo anno usque ad creatum mundum et plasmatum Adam, annos scilicet ducentos XXXVI, si per decem et IX partiaris, cyclos XII habebis, qui finiuntur anno nono mundi et Ade, et insuper VIII annos restare videbis, qui pertingunt ad ipsum primum annum mundane Creationis. Finitis ergo XII VIIIi magni anni cyclis in primo anno cycli decennovenalis, hi octo anni, qui supersunt, sursum versus numerati cogunt nos incipere cyclum decennovenalem ab illo anno, qui habet versum termini paschalis Pridie nonarum porro quaternis, habens concurrentes VII, epactas I, quem ordo annorum digestus secundum Hebraicam veritatem et fidem ewangelii ab adam usque ad passionem Christi ostendit fuisse primum annum mundi.'

¹⁵⁴ See also Sigebert of Gembloux, *Liber decennalis*, 2:19.

¹⁵⁵ Sigebert of Gembloux, *Liber decennalis*, p. 242 (2:33): 'DISCIPULUS: Ecce sub una responsione duplex patuit ratio, annorum scilicet a Christi passione usque ad Adam certa per magnos annos distinctio et transmutandi cycli decennovenalis occasio. Sed grave est et intollerabile, contra inolitam catholicorum patrum auctoritatem aliquid audere.' See also Sigebert of Gembloux, *Liber decennalis*, 2:1.

¹⁵⁶ Sigebert of Gembloux, *Liber decennalis*, p. 242: 'Unde reor consultius egisse Bedam, qui talem annorum posuit summam, que in nullo conturbet compoti regulam. Hi enim VIII anni, quos tu plus quam Beda posuisti, faciunt causam cyclum decennovenalem transmutandi.'

¹⁵⁷ Sigebert of Gembloux, *Liber decennalis*, pp. 242–43 (2:34): 'MAGISTER: Si recipiantur hii VIII anni ex crescentes ultra ducentos et VIII cyclos decennovenales, qui sunt in annis tribus milibus nongentis LX, videbitur quidem vacillare consueta ratio compoti, sed in anno dominice passionis solidabitur veritas ewangelii. Si autem hi VIII anni secundum Bedam demantur, ne consueta ratio compoti vacillare videatur, per hoc et veritas ewangelii, que vacillare non debet, infirmabitur et compoti ratio non per omnia in veritate solidabitur.'

The student retorts, however, that the framework of nineteen-year cycles followed by Bede could scarcely deviate from the Gospel, because it had been whispered into the ear of Pachomius (d. c. 347) or Eusebius of Caesarea by an angel.¹⁵⁸ The master acknowledges that a nineteen-year lunar cycle did indeed constitute an important foundation for the calculation of Easter, but he adds that the date of the Creation of the world must also logically have been the first year of such a nineteen-year lunar cycle (AM 1 = 1/19).¹⁵⁹ The student declares himself to be in complete agreement with this statement and calculates that according to Bede's Hebrew Creation era Christ was born in the last year of a nineteen-year lunar cycle (AM 3952 = 19/19).¹⁶⁰ He concludes from this that based on Bede's Hebrew Creation era one could definitely argue that the date of the Creation of the world had also been the first year of a nineteen-year lunar cycle, and that it was unnecessary to contest this Creation era.¹⁶¹

The master points out a new problem, however, namely that of the *saltus lunae*.¹⁶² The true age of the moon exceeded the calculated age after one moon by over six minutes and this discrepancy amounted to over seventy-five minutes annually.¹⁶³

¹⁵⁸ Sigebert of Gembloux, *Liber decennalis*, p. 243 (2:35): 'DISCIPULUS: Hoc quid sit, non intelligo, et lineam cycli decennovennalis vel ab angelo traditam vel ab Eusebio inspirante sibi magni consilii angelo compositam nullatenus vacillare a veritate credo, nisi certissima assertione attractus fuero.'

¹⁵⁹ Sigebert of Gembloux, *Liber decennalis*, p. 243: '(2:36) MAGISTER: Ego hunc cyclum decennovennalem a veritate vacillare nec dico nec ab aliquo hoc credi volo, quem pro stabili fundamento paschalis compoti teneo. (2:37) DISCIPULUS: Prode tuum sensum et, si quid probabile dixeris, non negabo meum assensum! (2:38) MAGISTER: Tu in hoc omnino laboras, ut primum annum decennovennalis cycli etiam pro primo mundi anno habeas.'

¹⁶⁰ Sigebert of Gembloux, *Liber decennalis*, p. 243 (2:39): 'DISCIPULUS: Quis hoc discrediti? Quis recte hinc aliter sentit? Hoc credo Beda sensit, qui in nullo a veritate Hebraica dissentiens talem summam annorum ab adam usque ad Christum posuit, ut primus annus huius cycli primo mundi anno deputetur et ultimus Christi nativitati ascribatur. Nam annos III DCCCCLII si per XIX divideris, VII magnos annos et XII octavi magni anni cyclos tenebis et in neutram partem aliquid vel deesse vel superesse videbis.'

¹⁶¹ Sigebert of Gembloux, *Liber decennalis*, p. 243: 'Video apud te veritatem ewangelii neglectum iri, dummodo per auctoritatem Bede evincas primum cycli annum concordare in ratione compoti primo anno mundi.'

¹⁶² Sigebert of Gembloux, *Liber decennalis*, pp. 243–44 (2:40): 'MAGISTER: Si Bede auctoritas tibi non sufficit, habeo tibi aliquid dicere, quod nec tua nec alicuius controversia subvertere possit. Saltem ratio de saltu lune obviabit tue loquacitati, qui tam obnixe obloqueris rerum veritati!'

¹⁶³ Sigebert of Gembloux, *Liber decennalis*, p. 244: 'Tute enim scis, quia inspecta lune etas a primo usque ad ultimum cycli decennovennalis annum deprehenditur perdere de sua etate propter

After nineteen years the difference would amount to exactly one full day, which explained why the epact in the last year of the cycle makes a 'leap' of twelve units instead of eleven, namely from eighteen to thirty.¹⁶⁴ Because this *saltus lunae* determines the age of the moon and thus the epact as well, it influences, through the paschal term, the entire Easter calculation.¹⁶⁵ In other words, every shift of the starting point of a nineteen-year cycle entails a necessary change in the intercalation moment of the *saltus lunae* and consequently in the entire Easter calculation, as well.¹⁶⁶ The student accepts his master's explanation and acknowledges that such a shift could indeed have unforeseen consequences.¹⁶⁷ This does not, however, explain why the date of the Creation of the world (12/19) does not coincide with

citatiorem sue ascensionis anticipationem per singulos menses IIII momenta unius hore et unam unciam momenti et unum athomum, que ratio facit per singulos XVIII annos concrescere unam horam et unum hore punctum et nonam decimam partem unius puncti. Quod melius deprehenditur subtilitate ingenii quam ratione calculandi.' See also Helperic of Auxerre, *De computo*, ch. 18. The length of 1 *momentum* is 90 seconds; 1 *uncia* is 1/12 *momentum* (=7.5 sec.); and 1 *athomus* is 1/47 *uncia* (=0.159 sec.). The term *punctus* corresponds to our concept of a 'quarter hour' (=15 min.).

¹⁶⁴ Sigebert of Gembloux, *Liber decennalis*, p. 244 (2:41): 'Hiis XIX horis et XIX hore punctis et XIX nonis decimis partibus puncti per XIX annis concretis et ultimo anno cycli in unum redactis, conficitur ille dies saltus lunaris, qui XVIIIo cycli anno subtractus competenter etati lunari epactas XVIII non per XI, ut solet, sed per XII facit transsilire in XXX, que vocatur nullas.'

¹⁶⁵ Sigebert of Gembloux, *Liber decennalis*, pp. 244–45: 'Et per hanc lune transsitionem tota paschalis compoti dirigitur ratio, dum per hoc lunas singularum kalendarum ordinat inviolabilis epactarum constitutio et ferias kalendarum digerit inconcussa concurrentium dispositio.'

¹⁶⁶ Sigebert of Gembloux, *Liber decennalis*, p. 245: 'Quod si aliqua cycli decennovennalis transmutatio admittatur, necesse erit, ut etiam saltus lune transmutetur et per hoc etiam epactarum secundum hunc cyclum compositus ordo dissipetur. (2:42) Hec enim tria, saltus lune scilicet, cyclus decennovennalis et epactarum constitutio, ita sibi invicem coherent quodam nexu naturali, ut nec unum sine duobus nec duo sine tercio possint aliquatenus moveri. Quod si aliquid horum aliquo modo aliquando quantulumcumque motum vel mutatum fuerit, statim tota paschalis compoti ratio vacillabit, que totam lunaris et solaris cursus varietatem dirigit. Tu ergo, qui hec non ignoras, qua fronte vel quo corde de transmutando decennovennali cyclo cogitare aliquid audeas?'

¹⁶⁷ Sigebert of Gembloux, *Liber decennalis*, p. 245 (2:43): 'DISCIPULUS: Nullus omnino invenietur, qui hiis tuis philosophicis allegationibus refragetur. Ego ipse, quamvis certam seriem annorum a passione Christi usque ad Adam secundum Hebraicam veritatem tenuerim et tenorem paschalis compoti, secundum quod in ipso anno passionis secundum ewangelii fidem inveni, usque ad ipsum primum mundi annum per cyclos decennovennales deduxerim, de transmutando tamen cyclo decennovennali nichil cogito, quia quid consequeretur satis intelligo.'

the beginning of a nineteen-year lunar cycle (1/19). He therefore requests that they scrutinize this incongruity further.¹⁶⁸ His master grants this request.¹⁶⁹

Subsequently not only the student, but the master as well undertake several attempts to link the date of the Creation of the world to the correct year in a nineteen-year lunar cycle, but time and again they run up against the problem of the *saltus lunae*.¹⁷⁰ Ultimately the student resigns himself to this unsolvable discrepancy, and he accepts the human inability to comprehend the deeper truths of God's Creation.¹⁷¹ After the failure of reason, he realizes that the only thing left to hold on to is the security of faith.¹⁷² After all, the desire to fathom God's unattainable Wisdom can lead only to delusions and emptiness.¹⁷³

¹⁶⁸ Sigebert of Gembloux, *Liber decennalis*, p. 245: 'Sed quia video cyclum decennovennalem nullam cum primo mundi anno posse habere concordiam, quid impedit querere, que res tam inplacabilem generet discordiam? Ideo quia est in hac re, quod adhuc diligentius inspicere debes, oportet aut prosequaris, si quid habes, aut michi copiam querendi dones.' For the dating of the Creation of the world to the twelfth year of a nineteen-year lunar cycle, see Sigebert of Gembloux, *Liber decennalis*, 1:123.

¹⁶⁹ Sigebert of Gembloux, *Liber decennalis*, p. 245 (2:44): 'MAGISTER: Accomodo aurem.'

¹⁷⁰ Sigebert of Gembloux, *Liber decennalis*, 2:45–67.

¹⁷¹ Sigebert of Gembloux, *Liber decennalis*, pp. 254–55 (2:68): 'DISCIPULUS: Iam non possum dediscere cycli cum primo mundi anno discordiam, quin maluissem ediscere concordiam. Sed quod sufficit patribus nostris, sufficiat et nobis, et quod illi dissimulaverunt se nescire, non magnopere cupiamus scire. Quod solum restat iam nunc, quod dixit propheta et nos dicamus: "Quam magnificata sunt opera tua Domine, nimis profunde facte sunt cogitationes tue, vir insipiens non cognoscet et stultus non intelliget hec." Quem insipientem et stultum esse reputem, nisi me ipsum, qui profundum divine operationis me penetrare putem?' See also Ps. 92. 6–7.

¹⁷² Sigebert of Gembloux, *Liber decennalis*, p. 255 (2:69): 'Quia ergo sensus et intellectus humanus magnitudine operum Dei superatur, solide fidei merito innitatur, sicut a Paulo apostolo docemur. Is in epistola ad Hebreos diffiniens, "quid sit fides, est, inquit, fides sperandarum substantia rerum argumentum non apparentum. In hac testimonium iusticie consecuti sunt senes, fide intelligimus secula aptata esse verbo Dei, ut ex invisibilibus visibilia fierent". Si Paulus dicit sola fide intelligi, quomodo secula et ea, que fiunt in seculis, aptentur verbo Dei, non est quod multa loquamur.' See also Hebr. 11. 1–3.

¹⁷³ Sigebert of Gembloux, *Liber decennalis*, p. 255 (2:70): 'Exclamemus tantum cum ipso apostolo: "O altitudo divitiarum sapientie et scientie Dei, quam incomprehensibilia iudicia et opera eius, quoniam ex ipso et per ipsum et in ipso sunt omnia, ipsi gloria in secula." Ne altiora te velis scrutari, poteris etiam his Iesu Filii Syrac verbis moveri. "In pluribus, inquit, operibus Dei ne fueris curiosus, non est tibi necessarium, que abscondita sunt, videre oculis tuis, plura enim super sensum hominum ostensa sunt tibi. Multos enim supplantavit suspicio illorum et in vanitate detinuit sensus illorum." See also Rom. 11. 33 and 36 and Eccles. 3. 22–25.

At the end of this second book the master analyses their search for the date of the Creation of the world. In the process he makes a distinction between impossible questions on the one hand and difficult ones on the other.¹⁷⁴ Next he proposes to lay this last category of questions before learned men. According to the master they had been able to formulate a prudent answer and distill from it that which was useful for themselves.¹⁷⁵ The impossible questions, however, he would lay before less learned men, because the human intellect could not solve them anyway.¹⁷⁶ In the category of difficult questions he includes the search for the chronological link between the date of Christ's Passion and the Creation of the world.¹⁷⁷ In the category of impossible questions he includes the inquiry into the way in which the date of the Creation of the world can without error be linked with one of the nineteen years of a nineteen-year lunar cycle.¹⁷⁸

Liber tertius

At the beginning of the third book the student first states that the reader now possesses all the information required to answer a number of specific research questions.¹⁷⁹ The first question pertains to the *auctoritas* that demonstrates the superiority of the Latin tradition as opposed to the Greek tradition. The latter tradition was based, after all, on the authoritative scholar 'Theophilus of Caesarea',

¹⁷⁴ Sigebert of Gembloux, *Liber decennalis*, p. 255 (2:71): 'MAGISTER: Fortiora me non attempto, sed ne attemptentur omnino, quam sit hoc, de quo agimus, difficile, vel quomodo sit impossibile, ostendo.'

¹⁷⁵ Sigebert of Gembloux, *Liber decennalis*, pp. 255–56: 'Quod est difficile, sapientibus propono, ut ipsi prudenter querant, que michi minusque mecum sapientibus prodesse queant.'

¹⁷⁶ Sigebert of Gembloux, *Liber decennalis*, p. 256: 'Quod autem est impossibile, minus sapientibus ostendo, ne aliquatenus laborent querere, quod nullatenus poterunt invenire.'

¹⁷⁷ Sigebert of Gembloux, *Liber decennalis*, p. 256: 'Atque ut et in inicio et in fine operis intentionem nostram monstremus, difficile dico annos Domini secundum veritatem ewangelii concordare cum annis mundi secundum Hebraice scripture auctoritatem. Quod est difficile, quamvis laboriose, poterunt tamen sapientes ad facilitatem redigere.'

¹⁷⁸ Sigebert of Gembloux, *Liber decennalis*, p. 256: 'Impossibile autem puto consequentiam lunaris cursus ab aliquo mortalium posse ad perfectum comprehendere ac per hoc fieri, ut primo mundi anno ullus annus cycli decennovenalis convenire possit, qui cyclus cum ipso mundo initiatus ad finem usque mundi inerrabiliter in se recurret. Et quis sani capitis credat in initio mundi illum cum aliquo errore cepisse, qui ex tunc usque in finem tam inerrabili tenore omnem cursum totius temporis dirigit?'

¹⁷⁹ Sigebert of Gembloux, *Liber decennalis*, p. 257: '(3:1) DISCIPULUS: adhuc aliqua subsunt, que, ut legentium studiis satisfiat, requirenda sunt. (3:2) MAGISTER: Proponantur!'

who had maintained that Christ had died on the same calendar day upon which Adam was created (23 March).¹⁸⁰ Other scholars claimed, moreover, that Adam had been driven out of Paradise on precisely the same day.¹⁸¹ In his reply the master first refers to the authoritative position of the Roman Catholic Church, which was backed by the unimpeachable apostolic tradition.¹⁸² The Roman preference for the Latin tradition must therefore be followed without concession.¹⁸³ Moreover, this preference was at the time never explicitly called into doubt, and therefore the *auctoritas* of the Roman Catholic Church could now not be called into question.¹⁸⁴

The student is not satisfied by this last negative argument, however, and therefore wants to know the actual names of the *auctoritates* who represent this Latin tradition.¹⁸⁵ The master refers first to a modern advocate of the Latin tradition, namely Marianus Scottus, who according to the master had also postulated a

¹⁸⁰ Sigebert of Gembloux, *Liber decennalis*, p. 257 (3:3): 'DISCIPULUS: Cum sanctus Theophilus Cesariensis episcopus, inter egregios merito scientie computandus, scribat Dominum nostrum Iesum Christum Xo kal. Aprilis passum, quo etiam kalendarum die constat prothoplastum Adam fuisse plasmatum.'

¹⁸¹ Sigebert of Gembloux, *Liber decennalis*, p. 257: 'eumque eodem die tradant aliqui de paradyso eiectum, qua auctoritate nos magis tenemus Christum Iesum VIIIo kal. Aprilis passum fuisse et VIo kal. Aprilis a mortuis resurrexisse? Et cum neutra pars suam ex hoc sententiam possit defendere aliquo testimonio ewangelii, poterimusne aliquorum maiorum probabili auctoritate ad roborandam nostram sententiam inniti?'

¹⁸² Sigebert of Gembloux, *Liber decennalis*, p. 258 (3:4): 'MAGISTER: Sancta Romana et apostolica ecclesia, que vere a petra Christo per Petrum a petra agnominatum super petram fidei specialiter edificata est, tam solide usque nunc stetit super fundamenti sui petram, ut numquam porte inferi prevaluerint adversus eam. Cum enim multos principalium sedium presules multotiens legerimus plusquam oportet sapuisse, Romane ecclesie primates scimus semper sapuisse ad sobrietatem ac per hoc numquam eos a fundamenti sui firmitate aliquantulum vacillasse. Ideo quod ex apostolica traditione usitatum tenuit et tenet, hoc universali ecclesie in perpetuum auctoritati esse debet.' See also Matt. 16. 18 and Rom. 12. 3.

¹⁸³ Sigebert of Gembloux, *Liber decennalis*, p. 258 (3:5): 'Revera enim eam tenuisse tenemus, quod Dominus noster Iesus Christus passus sit VIII kal. Aprilis in VIa feria, luna XVa, et resurrexit VIo kal. Aprilis, die dominica, luna XVIIas.'

¹⁸⁴ Sigebert of Gembloux, *Liber decennalis*, p. 258: 'Quod si aliqua ab aliquo aliquando questio inde ventilata fuisset, profecto et hinc, sicut et de aliis ecclesiasticis rebus, nos eius auctoritas roborasset. Sed quia nullus inde dubitavit, sancta mater ecclesia passionem dominicam VIIIo kal. Aprilis esse tenendam sollemniter ipso suo silentio confirmavit.'

¹⁸⁵ Sigebert of Gembloux, *Liber decennalis*, p. 258 (3:6): 'DISCIPULUS: Hoc esse verum, utile est certificari ex verbis maiorum!'

chronological correction of twenty-one years.¹⁸⁶ Consciously or unconsciously, Sigebert errs here, for Marianus had unambiguously calculated a correction of twenty-two years. The master finds other examples in Cassiodorus Senator and Victorius of Aquitaine.¹⁸⁷ The most important advocate of the Latin tradition was, however, Augustine of Hippo, who with his incontestable *auctoritas* trumped every deviant opinion.¹⁸⁸ In a variety of works Augustine had indeed clearly stated that Christ had died on 25 March.¹⁸⁹ Finally, the Venerable Bede was also added to this

¹⁸⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 258–59 (3:7): ‘MAGISTER: Abundamus exemplis, suffulti testibus idoneis. Modernior omnium cronographorum Marianus Scotius, vir laudabilis vite et scientie, scribens et ipse contra errores Dyonisii et perpendens non posse Dionisium concordare ewangelio in anno dominice passionis, nisi additis annis XXI ad annos Domini, in cronica sua ita scribit: Ex ipso, inquit, primo anno cycli Dionisii, id est VIo anno Iustiniani, numerando supra versus usque ad Dioclitianum iuxta cronicam Eusebii vel Bede supputemus, atque inde iterum usque ad cyclum Dionisii secundum scripturam divinam apostolicosque viros, qui tunc temporibus ipsis etiam de ipsis annis bene disputaverunt, non tantum ut ostendamus mendacium cronicarum, sed ut defendamus sacratissimam veritatem ewangelicam virosque catholicos ecclesie, qui post ewangelium perhibent Dominum nostrum Iesum Christum VIo kal. Aprilis, luna XVIIa, a mortuis resurrexisse, id est Ieronimum et Augustinum.’ See also Marianus Scottus, *Chronicon*, 3:554.

¹⁸⁷ Sigebert of Gembloux, *Liber decennalis*, pp. 259–60: ‘(3:8) Cassiodorus quoque, ex consule et senatore Romanorum monachus, in sancte scripture studio non leviter exercitatus, in cronica sua ita ait: “Iesus Christus, filius Dei, iuxta prophetias, que de eo erant prelocute, passus est VIIIo kal. Aprilis secundum IIII ewangelia, in anno XVIIIo imperii Tyberii cesaris secundum ewangelium sancti Iohannis, atque die tercio, VIo kal. Aprilis, luna XVIIa, secundum hystoriam sancti ewangelii a mortuis resurrexit.” (3:9) Victorius quoque calculator ad Hilarium papam scribens, ait: “Primo die azimorum Dominus noster Iesus Christus cenans cum suis discipulis, postquam sui corporis et sanguinis sacramenta patefecit, ad montem oliveti, sicut ewangelia sancta testantur, progressus ibique detentus est a Iudeis, tradente discipulo; dehinc VIa feria subsequente, id est octavo die kalendarum Aprilis, crucifixus est et sepultus, tercio die, hoc est VIo kal. Aprilis, dominico die, resurrexit a mortuis.”’ See also Marianus Scottus, *Chronicon*, 3:31 and 554.

¹⁸⁸ Sigebert of Gembloux, *Liber decennalis*, p. 260 (3:10): ‘Et quid laboramus multos citando testes? Augustinus ad medium deducendus est, ille, cuius auctoritas vicem multorum compensare potest.’

¹⁸⁹ Sigebert of Gembloux, *Liber decennalis*, pp. 260–62: ‘Is in libro, quem ad interrogationes Orosii presbyteri respondendo edidit, hinc inter cetera ait: “Quadraginta sex diebus dicunt infan-tem formari in utero et subinde usque in diem parturitionis augmentari. Quadragies sexies quippe seni fiunt CCLXXVI, qui faciunt menses VIII et dies VI. Computa ergo ab VIIIo kal. Aprilis, quando passus est -tunc etiam creditur conceptus fuisse-, usque in diem VIIIo kal. Ianuarii et repperies dies ducentos LXXVI, qui constant per senarium numerum.” (3:11) Idem in libro questionum Exodi, capitulo XCo, disputans de eo, quod dicitur: “Non coques edum in lacte matris sue, ait: Illud quoque forsitan non absurdum est, quod alii dicunt, id esse preceptum per prophetam, ne se boni Israelite sociarent malis Iudeis a quibus Christus passus est tanquam agnus in lacte matris

list of advocates of the Latin tradition.¹⁹⁰ At this the student asks whether the Greek Church still follows the Greek tradition of pseudo-Theophilus.¹⁹¹ His master denies this and states that the Greek Church itself had also chosen the Latin tradition.¹⁹² He refers to the Greek Church Father John Chrysostom (d. 407), who

sue, id est eo tempore, quo conceptus est. Dicuntur enim femine, ex quo conceperint, lac colligere. Illo autem mense passum esse Christum et pasche observatio et dies ecclesie notissimus nativitatibus eius ostendit. Qui enim mense nono natus est VIIIo kal. Ianuarias, projecto mense primo conceptus est circa VIIIo kal. Aprilis, quo die tempus etiam passionis eius fuit in lacte matris sue, hoc est in diebus [lactis] matris sue.” (3:12) Et cum hoc ipse Augustinus in multis librorum suorum capitulis opportune et crebro iteret, planius tamen hoc explicat in XXo capitulo XVIIIi libri de civitate Dei, ubi addit, etiam ab idibus Maii tempus apostolice predicationis initiari: “Mortuus est, inquit, Christus duobus Geminis consulibus VIIIo kal. Aprilis, resurrexit tertia die, VIo kal. Aprilis, sicut apostoli sui etiam sensibus probaverunt; deinde post XL dies ascendit in celum; post X dies, id est quinquagesimo post resurrectionem die, per idus Maias missus est Spiritus sanctus.” See also pseudo-Augustine of Hippo, *Dialogus quaestionum LXV*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 40 (Paris, 1845), cols 733–52 (quaestio 26); Augustine of Hippo, *Quaestiones in Heptateuchum*, 2:90; and Augustine of Hippo, *De civitate Dei*, 18:54.

¹⁹⁰ Sigebert of Gembloux, *Liber decennalis*, pp. 262–63: ‘(3:13) Possent ista sufficere, sed Beda a numero testium excludendus non est, qui in libro de temporibus capitulo XLVIIo ostendens Dionisium ab ewangelio discordare, suam sententiam subintulit, ipsiusque Theophili de qua agitur sententiam contexit: “Quod Dominus, inquit, XVa luna, feria VIa, crucem ascenderit et una sabbatorum, id est dominica die, resurrexerit a mortuis, nulli licet dubitare catholico, ne legi, que agnum paschalem XIIIo die primi mensis ad vesperam immolari precepit, pariter et ewangelio, quod Dominum eadem vespera tentum a Iudeis et mane VIa feria crucifixum ac sepultum, prima sabbati resurrexisse perhibet, videatur incredulus. Quod autem VIIIo kal. Aprilium crucifixus, VIo kal. earumdem, die resurrexerit, multorum late doctorum ecclesiasticorum constat sententia vulgatum. (3:14) Quamvis Theophilus Cesariensis, antiquus videlicet vicinusque apostolicorum temporum doctor, in epistola synodica, quam adversus eos, qui XIIIa luna cum Iudeis pascha celebrabant, una cum ceteris Palestine episcopis scripsit, ita dixerit: *Et impium non est, ut passio dominica, tantum sacramenti mysterium, foras limitem excludatur? Passus namque Dominus ab XIo kal. Aprilis, qua nocte a Iudeis est traditus, ab VIIIo kal. Aprilis resurrexit. Quomodo tres dies foras terminum excludantur? Constitutumque in illa synodo, ut ab XIo kal. Aprilis usque in XIum kal. Maii pascha debeat observari. Et in eodem libro superius scriptum est: Nam Galli quacumque die VIIIus kal. Aprilis fuisset, quando Christi resurrectio fuisse tradebatur, pascha semper celebrabant.*” Hec Beda.’ See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

¹⁹¹ Sigebert of Gembloux, *Liber decennalis*, p. 263 (3:15): ‘DISCIPULUS: Credendum est ergo ecclesiam Grecorum secundum hec Theophili verba tenere celebritatem passionis dominice?’

¹⁹² Sigebert of Gembloux, *Liber decennalis*, p. 263 (3:16): ‘MAGISTER: Nequaquam! Immo constat Grecos secundum ritum Romane ecclesie diem dominice passionis tenere, quod ex ipsorum Grecorum scriptis facile est videre.’

had made a clear declaration of his preference for the Latin tradition.¹⁹³ Sigebert is referring here, however, in reality to the pseudepigraphal text from third-century North Africa, which logically enough gave expression to the Latin tradition.¹⁹⁴

Having been provided this series of *auctoritates* in favour of the Latin tradition, the student now poses his second question, namely concerning the exact age of Christ.¹⁹⁵ A discussion ensues about whether Christ had died in His thirty-third or in His thirty-fourth year, although both parties appeal to Scriptures to make their case.¹⁹⁶ The master is just as convinced that the answer could indeed be found based on the Scriptures themselves, together with the patristic texts.¹⁹⁷ The student, however, asks first for further explanation concerning those who opt for the thirty-fourth year, who apparently relied upon a dual interpretation and for that

¹⁹³ Sigebert of Gembloux, *Liber decennalis*, pp. 263–64: ‘Iohannes patriarcha Constantiopolitanus, qui pro merito scientie et facundie Crisostomus agnominatur a Grecis, diem passionis ponit in VIIIo kal. Aprilis, hec scribens in omelia de equinoctiis et solsticiis: “Qua die, inquit, conceptus est Dominus, eadem die et passus est. Eadem ipsa die cena pura fuit, in qua et luna XIIIa occurrit. Conceptus est enim mense Martio VIIIo kalendarum Aprilium die, luna XVa fuit momentissime propter horam passionis sue sustinebat, unde die festo scenophegie dixerat: *Vos ascendite ad diem festum hunc, ego non ascendam, quia tempus meum nondum advenit*. Noverat enim mensis sollempnitatem, in quo Iohannes conceptus est. Nam suum tempus conceptionis et passionis sustinebat, quod recognoscens dixit: *Venit hora, ut clarificetur filius hominis*.” (3:17) Et infra. “Conceptus est ergo Dominus noster VIIIo kal. Aprilis mense Martio, qui est dies pasche, passionis Domini et conceptionis eius. In qua enim die conceptus est, in eadem et passus est. Et ideo Dominus ad Moysen in Exodo preceptum sacramenti tradens dicit: Non occidas super azima sanguinem immolatorum meorum. Et immolationis die sollempnis pasche initia creature tue in domum Dei tui inferes. Non occides, inquit, agnum in lacte matris sue. Hec significantia sunt agni immaculati, qui sacrificium Deo offerri habebat, quod in primo pascha conceptionis sue in utero matris non eum opportuisset occidi.”

¹⁹⁴ pseudo-Chrysostom, *De solstitiis et aequinoctiis*, cols 566–67 and cols 562–63.

¹⁹⁵ Sigebert of Gembloux, *Liber decennalis*, p. 264 (3:18): ‘DISCIPULUS: Etiam illud dignum quesitu esse videtur, cur inter scriptores tanta de annis etatis Iesu dissonantia inveniat.’

¹⁹⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 264–65: ‘Nam alii eum passum fuisse dicunt anno etatis sue XXXIIIo, computantes scilicet annos integros XXXII et III menses XXXIII synedochichos pro anno accipientes. Alii vero XXXIII annos integros computantes et III menses tricesimi quarti anni synedochichos accipientes, eum XXXIIIo etatis sue anno passum fuisse asserunt, et utrique sententiam suam ex scripturarum testimonio astruere volunt. Velim ergo ediscere, unde oriatur hoc dissonantia vel inter dissonantes scriptores quorum preponderet sententia.’

¹⁹⁷ Sigebert of Gembloux, *Liber decennalis*, p. 265 (3:19): ‘MAGISTER: Quid super hoc possit colligi ex canonica scriptura, quid super hoc sentiat catholicorum patrum doctrina, paucis, ut potero, aperiā, tu, ut voles, discernito scripturarum sententiam!’

reason there was division amongst themselves.¹⁹⁸ His master answers that the first interpretation is based on the distinction between lunar and solar years, whereby the date of Christ's baptism was both His thirtieth year according to a lunar reckoning and His thirty-first year according to a solar reckoning.¹⁹⁹ He encountered this 'obscure' theory in Book III of the chronicle of Marianus Scottus.²⁰⁰ The student finds this theory far from convincing.²⁰¹ The alternative and more traditional view in this party was based on the Venerable Bede, who linked the age of Christ at the beginning of His public life according to the Gospel of Luke to the reference to four paschas in the Gospel of John ($30 + 3.5 = 33.5$).²⁰² The master sums these

¹⁹⁸ Sigebert of Gembloux, *Liber decennalis*, p. 265 (3:20): 'DISCIPULUS: Expedi primum, quae sententia tueantur, qui anno XXXIII^o etatis hominem dominicum passum fuisse testantur. Quantum pro capto ingenio mei sentio, videntur michi illi aut omnes duplici sententia inniti aut ipsi bipertiti alterutra se utrique intentione tueri. Divide et tu hanc eorum duplicem intelligentiam!'

¹⁹⁹ Sigebert of Gembloux, *Liber decennalis*, p. 265 (3:21): 'MAGISTER: Quosdam eorum sentio ita sensisse, ut annum baptizati Iesu distinguant secundum distinctionem lunaris et solaris anni, ut unus idemque annus, quo baptizatus est Iesus, fuerit secundum lunares menses XXX^{us} annus etatis Iesu, secundum solares autem menses fuerit XXX^{us} primus.'

²⁰⁰ Sigebert of Gembloux, *Liber decennalis*, pp. 265–66: 'Que ratio eorum quam sit obscura, ex proposita unius eorum probabis sententia, qui hec hinc scribit in sua cronica: "Ipse, inquit, Iesus erat incipiens quasi XXX annorum, hoc est non plenus XXX annorum mensium duodecim, sed secundum Ieronimum et Lucam incipiebat XXX^{um}, quando baptizatus est in die XIII^o incipientis anni trigesimi, in die dominico epiphaniae; secundum solares autem annos tunc incipiebat annum XXX^{um} primus. Annus autem solaris, in cuius fine natus est, nativitatis eius annus est; annus autem etatis sue XII mensium, sicut in fine primi anni nativitatis incepit, ita in fine anni secundi nativitatis sue solaris complevit.'" See also Marianus Scottus, *Chronicon*, 3:31. In Book II Marianus Scottus had made a distinction between the years according to a solar reckoning on the one hand (*annus nativitatis*), and on the other a reckoning of Christ's age (*annus aetatis*): Marianus Scottus, *Chronicon*, 2:8–12. Sigebert has, however, erroneously interpreted Marianus's theory as a distinction between a solar and a lunar reckoning.

²⁰¹ Sigebert of Gembloux, *Liber decennalis*, p. 266 (3:22): 'DISCIPULUS: Quia hinc plus fumi exit quam fulgoris, caveamus caliginem oculis et mentibus nostris.'

²⁰² Sigebert of Gembloux, *Liber decennalis*, pp. 266–67 (3:23) 'MAGISTER: Alia eorum sententia verisimilior esse videtur, in qua non parva pars probabilium doctorum tenetur. Quorum Beda in libro de temporibus capitulo XLVII^o ita scribit: "Habet, ni fallor, ecclesie fides Dominum in carne paulo plus quam XXXIII annos usque ad sue tempora passionis vixisse. Quia videlicet triginta annorum fuerit baptizatus, sicut ewangelista Lucas testatur, et III semis annos post baptismum predicaverit, sicut non solum in ewangelio suo Iohannes commemorato redeuntis pasche tempore perdocet, sed et idem in Apocalypsi sua. Daniel quoque in suis visionibus propheticæ designat. Hi etiam se ewangelica auctoritate defensare volentes, annorum Iesu a baptismo usque ad passionem tantum per ewangelium distinctionem.'" See also Beda Venerabilis, *De temporum ratione liber*, ch. 47.

four statements up and in the process borrows implicitly from Heriger's *Epistola ad Hugonem*.²⁰³ The student does not agree with Heriger's interpretation, however, because the second reference does not necessarily refer to the Jewish pascha, and consequently there can at best be references to only three paschas.²⁰⁴

The second party believed, however, that Christ had died in his thirty-third year.²⁰⁵ This view was supported by among others Eusebius of Caesarea and Jerome of Strido, who proved Dionysius Exiguus and his successors wrong based on their greater *auctoritas* alone.²⁰⁶

²⁰³ Sigebert of Gembloux, *Liber decennalis*, p. 267 (3:24) 'Quam distinctionem annorum quidam in epistola sua ordinat per Iohannis ewangelium: "Aggressus est, inquit, Iohannes ewangelista numerum annorum predicationis Christi per dies festos pasche distinguere. Et quam pulchre ab ipsis diebus voluit exordium sumere. Miserunt Iudei ab Ierosolimis. Altera die vidit Iohannes Iesum venientem ad se. Altera die stabat Iohannes et ex discipulis eius duo. Die tercio nuptie facte sunt in Chana Galilee. Igitur primo anno predicationis sue, cum esset Ierosolimis in pascha, eiecit vendentes et ementes de templo, secundo anno in die festo pasche sanavit languidum ad piscinam, tercio anno post miraculum de panibus factum erat proximum pascha, dies festus Iudeorum. Quarto anno venit ante VI dies pasche Bethaniam, ubi Lazarum suscitavit, quando et passus est.'" See also Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, p. 481.

²⁰⁴ Sigebert of Gembloux, *Liber decennalis*, pp. 267–68: '(3:25) DISCIPULUS: Sufficiat nobis, quod per hanc particulam epistole intelleximus sensum scribentis. Et hic quidem, quicumque fuerit, constat, quia non probabilem trium dierum distinctionem fecit, sed hoc ad annorum predicationis Christi distinctionem nichil officit. Ac si pro certo constiterit, quod dies festus, in quo Iesus ad piscinam languidum sanavit, dies pasche fuerit, et hic dies secundum annum predicationis Iesu hoc signo in pascha notaverit, non est quod multa loquamur. (3:26) Quia per hoc XXXIII et semis annos predicationis Iesu omnino accipere etiam invito cogemur, non est enim obluctandum. Quis credat verba defuisse Iohanni ewangeliste, quibus debuerit etiam hoc anno nominasse diem festum pasche, sicut in aliis annis eum legimus fecisse? Aut Spiritus sanctus, qui sanctos et antiquissimos viros, Eusebium, Ieronimum, Cassiodorum aliosque in exponendo scripturas inspiravit, hic eis, ne et ipsi intelligerent hunc diem festum pasche fuisse, aspirare noluit? Multos enim dies festos Iudeorum preter pascha fuisse nullum diligentem scio nescire.'

²⁰⁵ Sigebert of Gembloux, *Liber decennalis*, p. 268 (3:27): 'MAGISTER: Hec interim pendeant sub opiniois ambiguo, iamiam alterius partis sententiam, qui XXXII et semis annos etatis Iesu ponunt, libero ventilandum proponamus iudicio.'

²⁰⁶ Sigebert of Gembloux, *Liber decennalis*, p. 268: 'Isti vero parti tanti nominis viros favisse video, quorum scriptis vel dictis quos indices queram nescio, cum omnium pene aliorum scripta istorum vereantur censuram vel prestolentur sententiam, Ieronimum dico, cuius in ecclesia auctoritatem nemo scripturarum studiosus ignorat, Eusebium quoque, quem Ieronimus clavim scripturarum nominat, quorum auctoritas quantum preponderet Dionisio, qui aliquos sanctos et doctos viros secum claudicare facit uno pede, nec te credo latere.' See also Sigebert of Gembloux, *Liber decennalis*, 1:15 and 3:33–35.

Table 42

(33.5 year – 34th year)	(32.5 year – 33rd year)
Dionysius Exiguus	Eusebius of Caesarea
Venerable Bede	Jerome of Strido
Heriger of Lobbes	Sigebert of Gembloux
Marianus Scottus	

The student, however, points out the paradox that both parties use the same evidence to support their interpretation, namely that Christ had preached for three years.²⁰⁷ The master congratulates his student for this astute remark and accounts for this paradox with the fact that the first party dated the beginning of Jesus's preaching in his thirty-first year, whereas the second party postulated his thirtieth year as the beginning of that period.²⁰⁸

The student's third question concerns the controversy about the exact duration of the seventy prophetic weeks from the book of Daniel.²⁰⁹ His master relates, however, that the solution to this question may easily be found using the Bible.²¹⁰ And yet the student asks after the exact nature of the controversy surrounding this

²⁰⁷ Sigebert of Gembloux, *Liber decennalis*, p. 269 (3:28): 'DISCIPULUS: Cum constet secundum Bede vel aliquorum rationem, immo secundum ewangelii veritatem vel revelationem Iohannis et prophetiam Danielis, Dominum Iesum tribus annis predicasse et hoc videam utriusque partis sequaces admittere, et eos scilicet, qui dicunt Iesum passum fuisse anno etatis sue XXXIII^o, et eos, qui hoc asscribunt anno XXXIIII^o, velim ediscere primo, undo inter eos huius dissonantie manaverit origo.' See also Sigebert of Gembloux, *Liber decennalis*, 3:23.

²⁰⁸ Sigebert of Gembloux, *Liber decennalis*, p. 269 (3:29): 'MAGISTER: Recte censes hoc preoccupandum esse, quia rei inventa origine commodius tractatur de rei qualitate. Est ergo videre huius discordie originem. Qui XXXIII^o etatis anno Iesum passum fuisse contendunt, ii XXX^{um} annum etatis Iesu, cuius inicio baptizatus, a predicationis eius annis excludere volunt, quia eo anno eum nil fecisse miraculorum legunt, et deinde, ut ewangelio vel Danieli de tribus et semis predicationis Iesu annis respondeant, XXXI^{um} et XXXII^{um} et XXXIII^{um} et XXXIIII^{um} initium predicationi et doctrine et miraculis Iesu assignant. Qui autem annis XXXII et semis contenti sunt, ipsum annum baptismi primum predicationis eius accipiunt, quo eum discipulos elegisse credunt secundum fidem ewangelii, et hoc non factum esset sine officio predicandi.' The master supports this theory in section 3:30–42.

²⁰⁹ Sigebert of Gembloux, *Liber decennalis*, p. 276 (3:43): 'DISCIPULUS: Ecce opportunitas exigit, ut vel nunc de LXX ebdomadibus Danielis promissum solvas et hoc maxime exponas, cur diverse a quibusdam numerare incipias.' This issue had already been touched on in Book 2 (2:24–25).

²¹⁰ Sigebert of Gembloux, *Liber decennalis*, p. 276 (3:44): 'MAGISTER: Si quereris etiam, ubi he auctoratius debeant compleri, multum hoc tue expediret interrogationi, quia certificatus de fine, de initio certificaberis facillime.'

question.²¹¹ The master answers that the Venerable Bede had set the starting point of these seventy prophetic weeks in the twentieth regnal year of Artaxerxes, while Eusebius of Caesarea had dated the restoration of the ruined temple in the thirtieth regnal year of the same Artaxerxes.²¹² According to Jerome of Strido the end point of this period fell in the year of Christ's death, namely the seventeenth or eighteenth regnal year of Emperor Tiberius.²¹³ Moreover, Christ himself had implicitly referred to His Passion as the ending point of the seventy prophetic weeks from the book of Daniel (Matt. 24. 15).²¹⁴

Using this fixed and certain ending point, the master now goes in search of the correct starting point.²¹⁵ By linking the ending point to AM 3992 and the starting point to AM 3518, he calculated a total duration of 475 solar years or 490 lunar years.²¹⁶ These seventy prophetic weeks were according to the book of Daniel

²¹¹ Sigebert of Gembloux, *Liber decennalis*, p. 276 (3:45): 'DISCIPULUS: Qui me ad querendum dirigis, utrumque querenti responde paucis!'

²¹² Sigebert of Gembloux, *Liber decennalis*, p. 276 (3:46): 'MAGISTER: De hac re diversi diversa sensere et aliqui precipuorum in anno XXo Atharsersis initium numerandi fecere, finem annorum ponentes, ubi eos ducebat magis intentionis initium quam veritatis iudicium. Me Eusebius docuit in cronicis suis, ut inciperem hunc numerum a XXXo anno Artharxersis, quando opera Ezre et Neemie iam consummata erat restauratio templi et urbis.' Contrary to what appears in Book 2 (2:24–25), Sigebert here records the thirtieth instead of the thirty-second regnal year of Artaxerxes. See also Beda Venerabilis, *De temporum ratione liber*, ch. 9, and Eusebius and Jerome, *Chronicon*, Olymp. 86/4.

²¹³ Sigebert of Gembloux, *Liber decennalis*, pp. 276–77 (3:47): 'Porro de fine harum ebdomadatum Ieronimo putavi esse credendum, qui de his ait: "Sane sciendum, quod ebdomadatum cursum nos in XVIIum vel in XVIIIum imperii Tyberii cesaris annum, quo Dominum passum credimus iuxta cronicam Eusebii, perduximus.'" Sigebert does not cite Jerome here, but rather Beda Venerabilis, *De temporum ratione liber*, ch. 9.

²¹⁴ Sigebert of Gembloux, *Liber decennalis*, p. 277: 'Et si vis maiorem his omnibus auctoritatem, ipsum Dominum, qui prophetarum est aspirator, tibi exhibebo huius prophetie expositorem, qui secundum Mathei ewangelium ait: "Cum videritis abhomi-nationem desolationis, que est dicta a Daniele propheta, stantem in loco sancto, qui legit, intelligat.'"'

²¹⁵ Sigebert of Gembloux, *Liber decennalis*, p. 277: 'Hec ergo de fine ebdomadatum harum fixa certitudo tollit a nobis totam ambiguitatem de earum initio.'

²¹⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 277–78 (3:48): 'Si ergo ab anno dominice passionis, qui est ab adam trimillesimus nongentesimus nonagesimus secundus, numeraveris retrogradando usque ad annum XXXum Artharxersis regis, qui est ab adam trimillesimus quingentesimus octavus decimus, invenies procul dubio annos solares CCCCLXX quinque, qui secundum lunarem Hebreorum supputationem, ab angelo abbreviati, faciunt CCCXC lunares annos septuaginta ebdomadatum.' Sigebert dated the Passion of Christ in AM 3992 (2:5) and the thirty-

divided into three unequal phases ($7 + 62 + 1 = 70$).²¹⁷ They began in the 156th year of the Jewish Exile (AM 3518) and ended irrevocably with the Passion of Christ (AM 3992).²¹⁸ It was thus clear that the prophecy in the book of Daniel had long predicted the fall of the Jewish Empire.²¹⁹ Both the Jewish author Flavius Josephus (d. c. 101) and Eusebius of Caesarea had reported that then procurator Pilate (d. c. AD 39) had secretly placed imperial statues in the temple of Jerusalem in the year of Christ's Passion, thus causing a series of rebellions which eventually led to the downfall of the Jewish people.²²⁰ The latter author had moreover predicted the prophetic nature of this downfall.²²¹

second regnal year of Artaxerxes in AM 3520 (2:24). Consequently, the seventy prophetic weeks lasted exactly 490 lunar years, starting in AM 3518.

²¹⁷ Sigebert of Gembloux, *Liber decennalis*, p. 278: 'Quomodo his coaptabitur solutio verborum angeli ad Daniele[m] ab exitu sermonis, ut respondeatur: "ut reedificetur Ierusalem usque ad Christum Ducem eptomades VII et eptomades LXII erunt", et paulo post: "confirmabit autem pactum multis eptomada una?"' See also Dan. 9, 25 and 27.

²¹⁸ Sigebert of Gembloux, *Liber decennalis*, pp. 278–79 (3:49) 'Horum verborum talis videtur esse consequentia: Ab anno, inquam, quo consummata restauratione templi et urbis exitum, id est finem et completionem, sermo prophetarum, qui prophetaverunt, quod prestito a Deo tempore responderent Cyrus vel Darius Zorobabeli vel Arthaxerses Ezre et Neemie interpellantibus pro excidio templi et urbis et, laxata captivitate, darent licentiam reedificandi templum et muros et plateas urbis in angustia temporis, ab illo, inquam, anno, quo hec prophetia completo opere completa fuerit, qui annus est a captivitate Iudaica fere CLVIus, numerande sunt ebdomades LXX usque ad annum, quo Christum Ducem occidet populus non suus et in templo stabit desolationis abominatio et per abominationem sequetur desolationis consummatio.' Bede dated the beginning of the Jewish Exile indeed to AM 3363: Beda Venerabilis, *De temporum ratione liber*, ch. 66.

²¹⁹ Sigebert of Gembloux, *Liber decennalis*, p. 279: 'Et quomodo intelligenda sunt illa Domini verba in evangelio, per que videtur esse predicta ultima Iudaici excidii consummatio?'

²²⁰ Sigebert of Gembloux, *Liber decennalis*, p. 279 (3:50): 'Iosephus vernaculus scriptor Iudeorum scribit, quod eodem, quo Iesus passus est, anno Pilatus preses secreto noctis ymages cesaris in templo statuerit et hec seditionis et turbarum Iudeis causa exstiterit et exinde usque ad extremum totius gentis excidium continua et in dies et annos magis magisque exagitata calamitatum series Iudeorum [gentem] oppresserit.' See also Flavius Josephus, *Antiquitates Iudaicae*, ed. by Fik J. A. M. Meijer and Marinus A. Wes, Ambo-klassek, 3 vols (Baarn, 1997–98), 18:4, and Eusebius and Jerome, *Chronicon*, Olymp. 202/3.

²²¹ Sigebert of Gembloux, *Liber decennalis*, p. 279: 'Hanc Eusebius quoque et consentaneus Eusebio Ieronimus dicunt predictam Danieli ab angelo et interpretatam discipulis a Domino desolationis abominationem, que ab ipso dominice passionis anno commota desolationis fecit consummationem.' See also Eusebius and Jerome, *Chronicon*, Olymp. 186/3.

The student now wants more information about the conversion of 475 solar years into 490 lunar years.²²² In answer the master cites from Bede's *De temporum ratione*. Therein it may clearly be read that 475 solar years are the product of twenty-five nineteen-year lunar cycles ($25 \times 19 = 475$). Because every nineteen-year lunar cycle also has seven extra embolismic months, fourteen lunar years had to be added.²²³ Finally, the seven remaining months together with the beginning of the year of Christ's Passion constitute the last year needed to arrive at 490 lunar years ($475 + 14 + 1 = 490$).²²⁴ According to Bede the important event of Christ's Passion explained why the last prophetic week in the book of Daniel was separated from the remaining sixty-nine weeks ($7 + 62 + 1 = 70$).²²⁵ The fact that this prophecy was confirmed by the words of Jesus Himself (Matt. 24. 15) was, according to the master, the highest imaginable *auctoritas* needed to connect the starting and ending points of the seventy prophetic weeks with the reconstruction of the

²²² Sigebert of Gembloux, *Liber decennalis*, pp. 279–80 (3:51): 'DISCIPULUS: Si quis captus amore legendi hec revolverit, si ignoret, quomodo anni lunares exequentur ad annos solares, non habebit forte in promptu, ubi requirat vel a quo ediscat. Unde, si etiam idiotis consultum velles, hec quantulumcumque aperires?'

²²³ $25 \times 7 = 175$ and $175 : 12 = 14$ ($r=7$).

²²⁴ Sigebert of Gembloux, *Liber decennalis*, p. 280 (3:52): 'MAGISTER: Quamquam hoc non sit suscepti operis, quia tamen hoc utile fore reris, ex verbis Bede vel discere vel docere poteris in libro de temporibus capitulo nono id ita exponentis: "Anni, inquit, CCCCLXXV continentur cyclis decennovenalibus XXV. Decies novies enim XXV fiunt CCCCLXXV. Et quia singulis circulis embolismi VII accrescunt, multiplica XXV per VII, fiunt CLXXV, qui sunt embolismi menses quadringentorum LXXV annorum. Si ergo vis scire, quot annos lunares facere possunt, partire CLXXV per XII. Duodecies deni et quaterni CLXVIII. XIII ergo annos faciunt et remanent menses VII. Hos iunge ad superscriptos CCCCLXXV, fiunt simul CCCCLXXXVIII. Adde et menses superfluos VII partemque octavi decimi anni imperii Tyberii, quo Dominus passus est, et invenies a tempore prefinito ad eius usque passionem ebdomadas LXX abbreviatis, hoc est annos lunares CCCXC.'" See also Beda Venerabilis, *De temporum ratione liber*, ch. 9.

²²⁵ Sigebert of Gembloux, *Liber decennalis*, pp. 280–81 (3:53): "'Ad eius vero baptismum, quando unctus est Sanctus sanctorum descendente super eum Spiritu sancto sicut columba, non solum eptomadas VII et LXII fuisse completas, sed et partem iam septuagesime eptomadis inchoatam. Et post ebdomadas, inquit, septem et sexaginta duas occidetur Christus et non erit eius populus, qui eum negaturus est. Non statim post VII et LXII ebdomada, sed in fine septuagesime eptomadis occisus est Christus. Quam ideo, quantum conicere possumus, segregavit a ceteris, quia de hac erat plura relaturus. Nam et Christus in illa crucifixus est et a populo perfido non modo in passione, verum continue, ex quo a Iohanne predicari cepit, negatus est.'" See also Beda Venerabilis, *De temporum ratione liber*, ch. 9, and Dan. 9. 26.

temple and the Passion of Christ, respectively.²²⁶ Moreover, the correctness of this was also confirmed by the fact that the starting point could indeed be chronographically linked to the thirtieth regnal year of Artaxerxes (AM 3518), just before the end of the narrative of the Hebrew Scriptures (AM 3520).²²⁷ This connection ultimately provides the master with the requisite source of authority to legitimate his own chronographical dating of Christ's Passion (AM 3992).²²⁸ The book of Daniel (Dan. 9. 24–27) and the words of Jesus Himself concerning the matter (Matt. 24. 15) constitute incontrovertible proof that Christ was born in AM 3960, so that Eusebius (AM 3964) and Bede (AM 3952) had counted four years too many and eight years too little, respectively.²²⁹

The student accepts now the correction to the Hebrew Creation era, but immediately poses his fourth question, namely whether Holy Scripture also provides the necessary authority for the correction to Dionysius's era (AD 12 = 33 VA).²³⁰ He

²²⁶ Sigebert of Gembloux, *Liber decennalis*, p. 281 (3:54): 'Quia aliorum sententias confirmat ipsa suis verbis veritas, credo, quod de initio vel fine LXX ebdomadarum iam non sit querenda maior auctoritas.'

²²⁷ Sigebert of Gembloux, *Liber decennalis*, pp. 281–82: 'Ecce pro divino habes, quod intentam diu Iudaice desolationis consummationem predixit Iesus iam impendere cervicibus impiorum, et non habes pro divino dispositam divinitus ita decurrere seriem temporum, ut aperte possis ex divinis scripturis colligere omnes annos ab adam usque ad dominice passionis annum. Hoc certe retro me monstrasse et te recolo approbasse, quando ostendi hystoriam Hebraice scripture usque ad annum XXXIum Artharxersis regis Persarum pertingere, porro ab anno XXXo eiusdem Artharxersis, quo consummata fuit restauratio templi et urbis, usque ad passionem LXX ebdomadarum Danielis annos decurrere.' See also Sigebert of Gembloux, *Liber decennalis*, 2:24–25.

²²⁸ Sigebert of Gembloux, *Liber decennalis*, p. 282 (3:55): 'Quis ergo sanum sapiens de annis dominice nativitatis vel passionis ambigat, quis eos a veritate evangelii discrepare ferat, cum tam probabili scripturarum auctoritate omnia ad concordiam reducere valeat?'

²²⁹ Sigebert of Gembloux, *Liber decennalis*, p. 282: 'Quicquid ergo vel viciositas corrumpit scriptorum vel interpolavit confusa distinctio temporum, hoc poteris facile et auctoriter dirigere ad divine vel angelice linee perpendicularum, hinc scripturarum auctoritate, hinc congruente tibi evangelii veritate. Hic potes videre Eusebio in numerandis ab adam usque ad natum Christum annis IIII annos superfuisse, Bede vero eandem numerandi viam insistenti VIII annos defuisse, quos ego medius eorum incedens ausus sum annis dominice nativitatis apponere, ut sancta scriptura evangelio congruat et sancte scripture evangelium respondeat. (3:56) Hoc Spiritus sanctus credo previdit, qui etiam per evangelium dominice passionis annum predici voluit. Hoc ipse Dominus noster Iesus intelligi voluit, quando sub ipsos dies passionis predicens affore consummationem desolationis, quam preibat abominatio, quam significabant imagines cesaris ipso passionis anno ponende in templo, signanter addidit: "qui legit, intelligat". See also Matt. 24. 15.

²³⁰ Sigebert of Gembloux, *Liber decennalis*, pp. 282–83 (3:57): '[DISCIPULUS:] De annis mundi te forte defendet auctoritas scripturarum, at de annis Christi quem speras habere exitum, qui annos

observes that the long and authoritative tradition of this Dionysian era is being abruptly undermined by his master's newfangledness.²³¹ The master replies, however, that he is not the first author of such a chronological correction, and that the addition of twenty-one years is necessary to link Christ's Passion to the gospel verity.²³² The master points out, though, that his predecessors did not provide a single chronographic explanation for the addition of these twenty-one extra years, whereas he himself had constructed a chronological link between the date of the Creation of the world (AM 1) and the Birth of Christ (AM 3960).²³³

Sigebert's remark strengthens the suspicion that the discussion of Dionysius's era was taking place in more places than the extant (and identified) manuscripts lead us to believe, but it is not entirely clear which predecessors Sigebert means here. Heriger of Lobbes and Gerland the Computist can be ruled out on grounds of contents. Furthermore it is less likely that he knew the chronological oeuvre of Abbo of Fleury. This author could have functioned as the ideal predecessor for Sigebert, but not a single mention to Abbo's chronological works is to be found in either Sigebert's *Liber decennalis* or his *De viris illustribus*. Striking is the fact that Sigebert does mention a correction of either twenty-one or twenty-two years. This

XXI presumis addere ad eam annorum Domini summam, quam usque in presentiarum tenuit auctoritas sanctorum et doctorum patrum?

²³¹ Sigebert of Gembloux, *Liber decennalis*, p. 283: 'Nimis enim credo eos hoc gravari, quod usum tot seculorum in hac novissima quodammodo mundi hora vident huius novellationis vanitate infirmari.'

²³² Sigebert of Gembloux, *Liber decennalis*, p. 283 (3:58): 'MAGISTER: Nolo me arguas presumptionis, quasi primus aut solus sim auctor huius novellationis. Scis tute, iam dudum multos Dionisio reclamare, intelligentes eum non posse omnimodis [ewangelio] concordare, nisi additis XXI vel XXII annis ad illam summam annorum Domini, quam ponit in initio cycli sui. Ipse quippe anno Domini DXXXIIIo, anno scilicet secundo cycli sui, qui annus debet respondere in ratione compoti primo anno dominice incarnationis, huic, inquam, anno aptavit eam consequentiam paschalis compoti, que competeat anno DLIIIo incarnationis eius, ponens scilicet incarnationem eius XXI tardius quam debuit. Inde error exortus, contradicit per omnia evangelice fidei in anno passionis eius.'

²³³ Sigebert of Gembloux, *Liber decennalis*, pp. 283–84 (3:59): 'Hunc errorem Dionisii qui corrigere volunt, annos XXI, quos deesse vident, ad concordiam temporis addunt et tamen eos unde habeant nesciunt. Ego tamen ab adam usque ad natum Christum digesta annorum serie, et locum et causam erroris, quem facit Dionisius, ostendo aperte, si cui forte hoc placet respicere.' See also Sigebert of Gembloux, *Liber decennalis*, 2:8–32. Sigebert is mistaken, because Abbo of Fleury and Marianus Scottus also dated the Creation of the world, in a 532-year luni-solar cycle, in 149/532 and in 54/532, respectively. See also Abbo of Fleury, *Epistola prima ad Geraldum et Vitalem* (Berlin, MS Phill. 1833, fol. 56'), and Marianus Scottus, *Chronicon*, 1:7–8.

last figure is perhaps an allusion to the chronological correction in the chronicle of Marianus Scottus, though Sigebert himself ascribes a correction of only twenty-one years to Marianus. Hezelo of Liège did not record his chronological correction of twenty-two years until 1095 at Cluny, but it is possible that he had already disseminated his chronological theories in the prince bishopric of Liège.²³⁴

Thus only two possibilities remained open. Either twenty-one years were added to the Dionysian era, or the laws of chronology had to be altered.²³⁵ The impossibility of the second option had already been demonstrated in Book 2, thus rendering a chronological correction of Dionysius's Incarnation era became inevitable.²³⁶ Yet the master feels compelled to qualify this severely dualistic position. He acknowledges that an erroneous tradition (*usus*) need not necessarily be changed as long as it did not controvert the faith (*fides*).²³⁷ In concrete terms this meant that the longstanding erroneous era of Dionysius Exiguus in practice carried more weight than the much younger attempts to reconcile this Incarnation era with the gospel verity.²³⁸

The student, however, sees a possible solution for this discrepancy between theory and practice.²³⁹ He refers to the example of Jerome of Strido. This author had chosen the Hebrew verity in his translation of the Vulgate, although in his translation of Eusebius's chronicle and in other works he had consistently followed

²³⁴ See Chapter 6, the section on 'Hezelo's Correction of the Christian Era'.

²³⁵ Sigebert of Gembloux, *Liber decennalis*, p. 284: 'Qui ergo de annis Domini Dionisium sequuntur et tamen rationem paschalis compoti ab anno dominice passionis dissentire non inficiantur, quo errore adhuc in numerando annos Domini involvuntur, sciant necesse esse aut addendum esse dominice incarnationi aut mutandam esse consequentiam compoti paschalis.'

²³⁶ Sigebert of Gembloux, *Liber decennalis*, p. 284: 'Sed impossibile mutari consequentiam compoti paschalis, quam veram esse et mente et oculis et usu tenemus. Hinc ratio determinat, quod summa annorum Domini, quam ponit Dionisius, in veritate non constat.'

²³⁷ Sigebert of Gembloux, *Liber decennalis*, p. 284 (3:60): 'Sed quia credo, quod a sententia sua et trito usu cedere turpe multis videbitur, si veritas rerum saltem sciatur, consuetudo autem ecclesiarum, si non est contra fidem, nullo modo permutetur, ne aliquis pusillorum Christi scandalizetur.' Note the striking similarity in contents and terminology to Heriger's position: 'Consuetudo autem ecclesiarum, si non est contra fidem, nullo modo permutanda' (Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, p. 484).

²³⁸ Sigebert of Gembloux, *Liber decennalis*, pp. 284–85: 'Nam apud omnes pene errorem Dionisii magis commendat annorum vetustas quam commendari possit moderni alicuius quamvis evangelico testimonio comprobata veritas.'

²³⁹ Sigebert of Gembloux, *Liber decennalis*, p. 285 (3:61): 'DISCIPULUS: Ita expedire video.'

the Septuagint era.²⁴⁰ Nor had other authors contested the then customary erroneous tradition openly, although they privately entertained a different opinion.²⁴¹ In the end the truth would win out against the erroneous custom, for in later phases it would be imbued with the necessary authority.²⁴²

The master acknowledges this reasoning and proposes therefore to give the book of this dialogue the title *Liber decennalis*.²⁴³ It contains, after all, a series of ten successive 532-year cycles from the Creation of the world to the *annus praesens*, namely the 284th year of the tenth 532-year cycle (AM 5072 = 1113 VA = AD 1092).²⁴⁴ According to the traditional Hebrew Creation era and the Dionysian era, however, that same year had to be dated either twenty-nine or twenty-one years later, respectively (AM 5043 instead of AM 5072 and 1113 VA instead of AD 1092).²⁴⁵

²⁴⁰ Sigebert of Gembloux, *Liber decennalis*, p. 285: 'Ipse enim Ieronimus, qui numerum annorum mundi ad normam Hebraice scripture correxuit, in chronicis Eusebii, que transtulit, et in multis librorum suorum locis usitatos LXX interpretum numeros posuit.' Jerome completed his Vulgate translation c. 401, but had previously already revealed his preference for the Hebrew verity in his *Quaestiones hebraicae in Genesim* (392). Both works, however, date after his translation and continuation of Eusebius's chronicle (378). Sigebert gave no consideration to the temporal differences between these two works of St Jerome's.

²⁴¹ Sigebert of Gembloux, *Liber decennalis*, p. 285: 'Quod et alios doctores fecisse scimus, qui veritatem usui in animo preponebant, nec tamen pro veritate aliquid contra usum moliri volebant.' It is not clear to whom Sigebert refers here.

²⁴² Sigebert of Gembloux, *Liber decennalis*, p. 285: 'Tandem tamen preponderavit usui veritas et usum in veritate solidavit doctorum auctoritas.' Sigebert refers here to the fact that Jerome's preference for the Hebrew verity was emulated thanks to the Venerable Bede's chronological oeuvre (AM 3952). See the Introduction, the section on 'The Dates of Christ's Birth and Passion: The Search for the Year of the Christ's Birth'.

²⁴³ Sigebert of Gembloux, *Liber decennalis*, p. 285 (3:62): 'MAGISTER: Libellus hic, si tibi videtur, decennalis appellari poterit, ut, quid insinuet, ex ipsa tituli inscriptione aperiri possit.'

²⁴⁴ Sigebert of Gembloux, *Liber decennalis*, pp. 285–86: 'Continet enim rationem decem magnorum annorum, quorum VIII et de Xo anno anni CCLXXXIII transacti sunt ab adam usque ad presentem annum, qui faciunt annos ab adam V LXXII. Presens autem annus secundum veritatem evangelio congruentem numerum est ab incarnatione Domini annus millesimus centesimus tertius decimus, habens concurrentes III cum bissexto, epactas VIII, termini paschalis versum "Sene kalende titulant ternos, diem dominicum Vo kal. Aprilis", indictionem XVam.'

²⁴⁵ Sigebert of Gembloux, *Liber decennalis*, p. 286 (3:63): 'Secundum Dionisium autem est annus ab adam quinque millesimus quadragesimus tertius, ab incarnatione vero Domini est annus millesimus nonagesimus secundus, distans annis XXI ab ea consequentia paschalis compoti, quam superius posui et que presenti anno competit, quia tot annis, ut dictum est, tardius quam debuit incarnationem Domini posuit.'

Table 43

	AM ~Dionysius	AD ~Sigebert	VA ~Sigebert	AM ~Sigebert	x/532
° World	AM 1	—	—	AM 1	1/532
° Christ	AM 3952	AD 1	1 VA	AM 3960	236/532
<i>annus praesens</i>	AM 5043	AD 1092	1113 VA	AM 5072	284/532

He now once again states that every believer must make his own ‘choice’ for either Dionysius’s Incarnation era, on the one hand, or the gospel verity, on the other.²⁴⁶ He immediately adds that this gospel verity may by definition not be disavowed.²⁴⁷ Given the fact that many saints had already died the death of a martyr in defense of the gospel verity, it was no more than logical to claim that a ‘small lie’ of Dionysius’s had been corrected.²⁴⁸

Next the student poses his fifth question. Because the Dionysian era has proven to be erroneous, he now wonders whether the ‘natural’ Dionysian rules of thumb or *argumenta* should not also be adjusted.²⁴⁹ The master confirms that these are not ‘natural’ *argumenta*, so that they are thus not per definition correct.²⁵⁰ According to him these Dionysian rules of thumb are not only applicable to Dionysius’s own

²⁴⁶ Sigebert of Gembloux, *Liber decennalis*, p. 286: ‘Qui numerus secundum Dionisium si recipitur ex toto, ut sepe inculcatum est, ewangelii veritas in anno dominice passionis subvertetur. Ideo omnis fidelis debet perpendere, ubi sit tolerabilius errare, in annorum summa an in veritate evangelica.’

²⁴⁷ Sigebert of Gembloux, *Liber decennalis*, p. 286: ‘Ewangelium autem aliquo modo mentiri nec audire nec pati debet auris et mens hominis christiani.’

²⁴⁸ Sigebert of Gembloux, *Liber decennalis*, p. 286: ‘Sancti Dei pro defensione veritatis ewangelice mori patiebantur, nos pro confirmatione veritatis ewangelice unum mendacium corrigi non patiemur, presertim cum hoc non aliunde quam ex testimonio ewangelice veritatis vel arguatur vel corrigatur?’

²⁴⁹ Sigebert of Gembloux, *Liber decennalis*, pp. 286–87 (3:64): ‘DISCIPULUS: Mirum, si Dionisius in annis Domini falli potuit, qui per ipsos annos Domini tam probabilia, immo naturalia argumenta composuit, quibus concurrentes, annos a bissexto, cyclos lunares, cyclos decennovennales, epactas, indictiones regularum invenire docuit. Si enim aliquatenus in annis Domini falleretur, numquam tam solida argumentorum veritas per annorum falsitatem roboraretur.’

²⁵⁰ Sigebert of Gembloux, *Liber decennalis*, p. 287 (3:65): ‘MAGISTER: Hoc, quod est veri simile, quamvis interdum a vero desciscat, tamen se sepe veri specie colorat, quod autem est verum, semper falsitati repugnat. Quia ergo natura semper veritatem comitatur, quicquid naturaliter argumentatur, id a veritate solidatur. Ob hoc argumentationes Dionisii veras esse nemo potest dedicere.’

Incarnation era (AD), but also to the corrected era (VA).²⁵¹ In order to prove this paradoxical hypothesis, the master proposes to apply the rules systematically to the corrected era (VA).²⁵² Following this calculation, the student decides that the Dionysian rules are indeed also applicable to the corrected era, and therefore cannot provide a definitive answer concerning the superiority of one of the eras over the other (AD or VA).²⁵³

With his sixth question he next seeks an answer to the origin of the indiction, because unlike the epact and the concurrent, it did not originate in the year of Creation itself.²⁵⁴ The master replies to this that it was a Roman invention and that the indiction changes on 24 September.²⁵⁵ He subsequently points out that at the time of Emperor Augustus (d. AD 14) this indiction had grown out of a system of taxation (*era > es*), that the number then changed on 1 January, and that it was valid for a period of only five years.²⁵⁶ Following every five years gold, silver, and bronze, respectively, was given, and in that way a complete fifteen-year indiction cycle ultimately came into being, the number of which changed on 24 September.²⁵⁷

²⁵¹ Sigebert of Gembloux, *Liber decennalis*, p. 287: 'Hos ipsos tamen argumentandi modos si velis apponere annis Domini, quos nos posuimus, erit multo mirabilius, cum argumenta Dionisii etiam nobiscum contra Dionisium videbis consentire in omnibus.'

²⁵² Sigebert of Gembloux, *Liber decennalis*, p. 287: 'Quis hoc nisi expertus credet? Componantur itaque alternatim argumenta Dionisii a te cum annis Domini a Dionisio positiss a me cum annis Domini contra Dionisium positiss.'

²⁵³ Sigebert of Gembloux, *Liber decennalis*, p. 293 (3:85): '[DISCIPULUS:] Quia regule Dionisii in utramlibet partem vergunt, neutri parti de annis Domini concertantium victoriam promittunt.'

²⁵⁴ Sigebert of Gembloux, *Liber decennalis*, p. 293: 'Cum certam originem teneamus omnium scilicet concurrentium, epactarum, cyclorum, et ea ab initio mundi concurrisse sciamus, quid quo tempore indictiones constitute sint dicemus?'

²⁵⁵ Sigebert of Gembloux, *Liber decennalis*, p. 293 (3:86) '[MAGISTER:] De hiis, preterquam quod a Romanis constitute sunt et quod VIIIo kal. Octobris mutari debeant, nusquam scripturarum aliquid legimus.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 48.

²⁵⁶ Sigebert of Gembloux, *Liber decennalis*, pp. 293–94: 'Anno autem, quo edicto cesaris Augusti totus orbis sub censu est descriptus, eram ab Augusto ipso institutam legimus, et eram dictam pro eo, quod omnes es dependerent Romanis et ipsius ere immutationem esse in Ianuarii kal. Unde in antiquorum scriptis pro numero annorum Domini eram invenimus eodem pretitulatam numero. Indictio ergo, que per quinquennium revolvitur, utrum etiam era vocetur, quando annuatim numero crescente distinguitur, a studioso requiratur. Quesitum est et inventum, quod a se differant era et indictio.'

²⁵⁷ Sigebert of Gembloux, *Liber decennalis*, pp. 294–95 (3:87): 'Inde talis est patrum descripta sententia: "Era singulorum annorum constituta est a cesare Augusto, quando orbe descripto

With his seventh and final question the student returns to Dionysius Exiguus. He wonders whether applicability of the Dionysian rules to the corrected era now excused him from a careless dating of Christ's Passion.²⁵⁸ The master points out, however, that Dionysius had introduced the Incarnation era, but in his preface had not clearly indicated in which year his Incarnation era began.²⁵⁹ Moreover, he refers to the *Praefatio ad cyclum Dionysii* by Felix Gillitanus, in which it is clearly stated that Dionysius Exiguus had not constructed a complete 532-year luni-solar cycle, but only the first ninety-five years (532–626).²⁶⁰ A second borrowing with similar contents,

primum censum exegit." Hec era apud Romanos erat quinquennii tempus. "Dicta est autem era eo, quod omnis orbis professus est reddere es rei publice per V annos." Per alios autem quinque argentum. Per alios autem quinque aurum. Sed tamen, qui non poterat dare aurum, dabat argentum. Et qui non habebat argentum, solvebat es. Sic tribus eris, id est quindecim annis, transactis, indictio plena dicebatur, quasi edictio perfecta. Era et indictio etiam in hoc differunt, quod indictio mutatur VIIIo kal. Octobris, era autem in kalend. Ianuarii.' See also Isidore of Seville, *Etymologiae*, 5:36,4, and Beda Venerabilis, *De temporum ratione liber*, ch. 48.

²⁵⁸ Sigebert of Gembloux, *Liber decennalis*, p. 295 (3:88): 'DISCIPULUS: Quid dicemus de Dionisio? Estne verum, quod, finito a nativitate Christi magno cyclo cyclorum XXVIII, composuerit Dionisius secundum magnum cyclum annorum DXXXII? Huius Dionisii regule cum in utramque partem concordent veritati, poteritne excusari ipse a culpa erroris, que inpingitur ei de anno dominice passionis?' On the guilt of Dionysius Exiguus, see also Sigebert of Gembloux, *Liber decennalis*, 1:24–25.

²⁵⁹ Sigebert of Gembloux, *Liber decennalis*, p. 295 (3:89): '[MAGISTER:] Super Dionisio excusando multum laboravimus, argumentati enim sumus, quod Dionisius imitatus Cirillum, nec ipse annos Domini apposuit cyclo suo. Sed nos ipse Dionisius super hoc refellit, qui dicit in prefatione operis sui, se annos Domini apposuisse cyclo suo. Nec pro hoc destitimus ab eius excusatione, argumentantes, quod non dixit, quotum annum Domini apposuerit cyclo suo.' See also Dionysius Exiguus, *Epistola ad Petronium*. Sigebert refers here to an implicit interpretation from Book 1, in which he had suggested that Dionysius meant the year 532 as the starting year of the last nineteen-year cycle of pseudo-Cyril (AD 513 = 532 VA): Sigebert of Gembloux, *Liber decennalis*, 1:32–33.

²⁶⁰ Sigebert of Gembloux, *Liber decennalis*, pp. 295–96 (3:90): 'Super hiis omnibus nos instruit evidenter Felix abbas Gillitanus, qui scribit, quod Dionisius non composuit totum secundum magnum cyclum annorum DXXX duorum, sed tantum initium secundi magni cycli, id est cyclum quinque cyclorum decennovenalium ad imitationem Cyrilli. Huius Felicis talis est sententia: "Olimpiade centesima nonagesima quarta mediante, id est XLIIo anno imperii Octaviani Augusti, natus est Dominus noster Iesus Christus in carne. A nativitate ergo Domini usque in olimpiadem CCXLVam [corr. CCLXVam], id est usque in primum annum Dioclitiani, fiunt anni CCLXXXIII. Et a primo anno Dioclitiani usque in primum ciclum Dionisii invenies annos CCXLVIII. Fiunt quippe simul anni DXXXII. Ob hoc et Dionisius anno DXXXIIo in primo suo cyclo orsus est ab incarnatione Domini. Nam hic cyclus sancti Cirilli in CCXLVIIo finivit. Adde unum, quem inchoat Dionisius, et invenies annos CCXLVIII.'" See also Felix Gillitanus, *Praefatio*

however, comes not from this *Praefatio* by Felix Gillitanus, but rather from an anonymous *Prologus* (616).²⁶¹ This *Prologus* is frequently in the manuscripts erroneously attributed to Felix Gillitanus (d. 557). When it was first introduced in North Africa, the original ninety-five-year cycle of Dionysius was preceded by Felix's *Praefatio*. Because the period covered by Dionysius's own ninety-five-year cycle had already ended in 626, it was left out when copied. Consequently Felix's *Praefatio* came to occupy a place very near to this anonymous *Prologus* and the accompanying Easter table, so that the tradition soon arose of attributing this to Felix Gillitanus, too.²⁶²

These borrowings constitute the otherwise open end of this third book in the only extant manuscript, namely Rome, Biblioteca Angelica, MS 1413, fol. 23^r. It is, however, uncertain whether this section also constituted the original conclusion of Sigebert's third book, because the explicit is missing.

Decem magni cycli (AM 1 – AM 5320)

After this tripartite prologue there follows Sigebert's Easter table proper of ten successive 532-year cycles (AM 1 – AM 5320). These were not copied by the scribe of the Rome manuscript, but Miraeus copied the first years of the Easter table based on the lost Gembloux manuscript.²⁶³

ad cyclum Dionysii, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, pp. 86–87.

²⁶¹ Sigebert of Gembloux, *Liber decennalis*, pp. 296–97: '(3:91) Item: "Dionisius quondam urbis Rome sanctissimus abbas, utriusque lingue, Grece videlicet et Latine, eliganti scientia preditus, paschaliū rationum decennovennales numero quinque sagaci ingenio anteriores composuit cyclos, exordium scilicet sumens ab incarnatione Domini nostri Iesu Christi DXXXIIo anno, indictione decima, et usque DCXXVIma incarnationis annum, indictione XIIIa, memoratorum cyclorum serie continuata produxit. (3:92) Quoniam igitur memorati viri quintus nunc peragitur cyclus, ad cuius supplementum decem adhuc supersunt anni, nostra providet parvitas alios subsequentes cyclos decennovennalium numero V instar superiorum cyclorum rationabili dispositione componere, initium facientes a DCXXVIIo incarnationis dominice anno, indictione XVa, et usque in septingentesimo XXIIo incarnationis dominice anno, indictione quarta, certum prefixumque posuimus terminum. Quapropter monemus lectorem, ut, dum prefati et venerabilis Dionisii quintus cyclus explicitus fuerit, ad nostros subsequentes ut diximus cyclos V transitum faciat et absque ulla erroris caligine dies festissimos paschales vel lunas per ordinem de ratione repperiet.'" See also Successor Dionysii, *Prologus ad cyclos decemnovenales*, ed. by Krusch, in *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung*, p. 87.

²⁶² Jones, *Opera de temporibus*, p. 74.

²⁶³ Sigebert of Gembloux, *Chronicon*, Introduction. See also Wiesenbach, 'Der *Liber decennalis* in der Hs. Rom', p. 174, and Wiesenbach, 'Sigebert von Gembloux', p. 19.

Table 44

<i>Anni Adam</i>	<i>Concurrentes</i>	<i>Epactae</i>	<i>Termini Paschales</i>	<i>Dies paschales</i>	<i>Cycli lunares</i>	
I	VII	I	II non. apr.	VI id. apr.	IX	Adam et Eva
II	I	XII	IX kal. apr.	II kal. apr.	X	

The columns represented do indeed coincide with the description that Sigebert himself gives in his *Catalogus de viris illustribus*.²⁶⁴ Moreover, the chronological data for the date of Creation (AM 1) also coincide with Sigebert's indications in Book 2 of his *Liber decennalis*: the concurrent is 7, the epact is 1, and the paschal term falls on 4 April.²⁶⁵ Based on his tripartite prologue, the remaining important years are readily filled in. Christ's Birth fell in AM 3960 (= 1 VA), His Passion in AM 3992 (33 VA), and then *annus praesens* in AM 5072 (= 1113 VA).

Chronica universalis: editio posterior (1111)

The more Sigebert's *Liber decennalis* passed into oblivion, the more famous, however, Sigebert became for his chronicle, the first version of which extended to 1084.²⁶⁶ In this version Sigebert already refers explicitly to the chronological problem of the Dionysian era with respect to the date of Christ's Passion. For the year AD 34 Dionysius Exiguus had given 28 March for Easter Sunday, which controverted the gospel verity.²⁶⁷

²⁶⁴ Sigebert of Gembloux, *Catalogus de viris illustribus*, pp. 105–06: 'ut medium horum incedens omnes annos ab origine mundi decursos vel in futurum decursuros inspecta ratione iuxta Hebraicam veritatem colligerem, scilicet per cyclos lunares, qui XIX annis, et per cyclos solares, qui XXVIII annis concluduntur, et per alterum multiplicati magnum cyclum DXXXII annorum conficiunt, lineatim distinctis hinc inde annis Ade, epactis, concurrentibus, terminis paschalibus, diebus dominicis pasche, eadem via qua Dionisius, sed non eisdem vestigiis'.

²⁶⁵ Sigebert of Gembloux, *Liber decennalis*, 2:10 (pp. 230–31): 'Sic longo nimis tractu emenso per mille amfractus numerandi vix tandem ad imum interioris extremitatis aditum perveni et nescius in primum seculi annum, ut michi visum est, impegi, qui est in magno Dionisii anno quinti decimi cycli XIIus annus, habens concurrentes VII, epactas I, lunam XIIIam Aprilis in Ilo nonas Aprilis.'

²⁶⁶ Sigebert of Gembloux, *Chronica universalis*, ed. by Ludwig C. Bethmann, Monumenta Germaniae Historica, Scriptores, 6 (Stuttgart, 1968), pp. 268–474. Bethmann's edition is in urgent need of replacement, because its numerical data are too often corrupt.

²⁶⁷ Sigebert of Gembloux, *Chronica universalis*, p. 316: '532: Quia antiquitus delegatum erat Alexandrino pontifici, ut diem celebrandi pascha annuatim denunciaret Romano pontifici, et per eum caeteris aecclesiis occidentalium, qui sepe de pascha celebrando aut dubitabant aut errabant,

It is only in his second and revised version (up to 1111) that Sigebert also offers his reader a solution for this chronological problem. He repeats first that according to Dionysius's reckoning Christ was resurrected on Sunday 28 March (luna xxi), and not on Sunday 27 March (luna xvii).²⁶⁸ Consequently a chronological correction of twenty-one years was necessary to reconcile the date of Christ's Passion with the gospel data (AD 979 = 1000 VA).²⁶⁹ Somewhat further on Sigebert goes so far as to add that the Dionysian era had come about in a careless manner.²⁷⁰ In a final reproach of Dionysius Exiguus, Sigebert dates Christ's Passion according to the Latin tradition in 1076 (=AD 12).²⁷¹ He refers in this context to his predecessor Marianus

nunc Romanorum errorem aut ignorantiam non ferens Dionisius abbas Romanus cyclum magni anni annorum scilicet quingentorum triginta duorum ab hoc anno orditur, qui etsi ab omnibus recipitur, in eo tamen improbat quod passionem Domini 12 Kal. Aprilis et resurrectionem 5 Kal. Aprilis ponens, veritati euangelicae contraire videtur.' It is chronologically indefensible that Christ's Passion according to Dionysius was dated to Sunday 21 March (luna xiv). A textual emendation is probably in order here, and the first date — just as in the *editio posterior* — refers rather to the paschal term of the year of Christ's Passion.

²⁶⁸ Sigebert of Gembloux, *Chronica universalis*, p. 316: '532: Hoc anno expletus est a Christi nativitate magnus annus annorum 532. Ab hoc etiam anno Dionysius abbas orditur ciclum suum ciclorum quinque decennovennalium. Et quia secundus annus operis huius concordare debet in ratione compoti primo anno nativitatis Christi, debet 35us annus cycli Dyonisii concordare in ratione compoti 33o anno nati Christi, scilicet ut 14ma luna Aprilis occurrat 9. Kal. Aprilis in 5. Feria; passio Christi 8. Kal. Aprilis in 6. feria, resurrectio 6. Kal. Aprilis in dominica die. Sed quia non ita occurrit, sed luna 14ma Aprilis occurrit eo anno 12. Kal. Aprilis in 1. feria, dominica vero dies paschae in 5. Kal. Aprilis, ideo improbat, quia repugnat euangelicae veritati.'

²⁶⁹ Sigebert of Gembloux, *Chronica universalis*, p. 352: '979: Hoc anno complentur mille anni a nativitate Christi, secundum veritatem euangelii, qui secundum cyclum Dionisii anno abhinc 21. finiuntur; sicque in anno dominicae passionis veritati euangelicae contrahitur.'

²⁷⁰ Sigebert of Gembloux, *Chronica universalis*, p. 361: '1063: Hoc anno finitur magnus ciclus annorum 532, continens ciclos decennovennales 28, qui ad omnem rationem paschalis compoti omnino utilis, ab evo in evum in semet ipsum sine errore revolvitur. Sed hoc in eo reprehensibile esse videtur, quod annis dominicae incarnationis ei inconsiderate prescriptis, discordat a veritate euangelii in anno dominicae passionis, preferens 14. lunam Aprilis eo anno in prima feria fuisse; quod omnino falsum est, quia secundum fidem euangelii eo anno luna 14. Aprilis fuit in 5. feria, et in 6. feria luna 15. Dominus passus est.' On the term *inconsiderate*, see Sigebert of Gembloux, *Liber decennalis*, 1:23 and 2:21.

²⁷¹ Sigebert of Gembloux, *Chronica universalis*, p. 363: '1076: Hoc anno, qui est 13. annus primi decennovennalis cicli in repetito magno anno Dionisii, duobus magnis annis a passione Domini revolutis, omnia quae ad cursum solis et lunae spectant, anno dominicae passionis concordant. Unde apparet, quod Dionisius non recte annos Domini ciclo suo annexuit. Quia enim ab anno Domini 532. ciclum suum orditus est, nimirum intendit, Christum fuisse natum anno secundo prioris magni anni; ac per hoc hic annus anno dominicae passionis concordans, debuisset

Scottus, who in Book III of his chronicle had systematically laid out a corrected era according to the gospel verity (VA) alongside the Dionysian era (AD).²⁷²

Equally striking is Sigebert's internal reference to his correction of the Hebrew Creation era, because he explicitly equates the year AD 829 with AM 4788.²⁷³ It follows from this equation that Christ's year of Incarnation had to be dated to AM 3960 (4788 - 828 = AM 3960).²⁷⁴ At the beginning of his chronicle Sigebert had also already presented the traditional Hebrew reckoning *secundum Dionisium* (4332 - 380 = AM 3952).²⁷⁵ Finally, it is an interesting fact that, like Abbo of Fleury, Sigebert devoted some attention to the chronological issues pertaining to the date of Benedict of Nursia's death.²⁷⁶ He dated Benedict's death to 509 and based this dating on the *Vita sancti Mauri*, in which it is clearly stated that Benedict had died on Easter Saturday, 21 March.²⁷⁷ It is, however, striking that

esse magni cicli annus non 13. sed 33. [corr. 34.] quia is fuit annus passionis Domini. Et per hanc consequentiam solaris et lunaris cursus, concordantem euangelicae veritati, Dionisius posuit nativitatem Christi viginti uno annis tardius quam debuit.'

²⁷² Sigebert of Gembloux, *Chronica universalis*, p. 364: '1082: Marianus Scottus chronicam suam a Christi nativitate inchoatam usque ad hunc annum preduxit, qui erat aetatis suae annus 56. multum laborans corrigere errorem de annis Domini, qui invenitur in ciclo Dionisii, quod facile est videre, hunc positus ab eo annis Domini secundum ciclum Dionisii, altrinsecus autem secundus veritatem evangelii.' As he had done in his *Liber decennalis* (3:7) Sigebert here neglects to mention that Marianus's chronological correction in fact constituted twenty-two years (AD 1 = 23 VA).

²⁷³ Sigebert of Gembloux, *Chronica universalis*, p. 338: 'Hoc anno, qui est annus ab initio mundi 4888 [corr. 4788], finitur nonus annus magnus ab initio mundi, qui est annorum 532.'

²⁷⁴ This equation (AM 3960 = 22 VA = AD 1) deviates from Sigebert's earlier one (AM 3960 = 1 VA = 21 BC): Sigebert of Gembloux, *Liber decennalis*, 2:9.

²⁷⁵ Sigebert of Gembloux, *Chronica universalis*, p. 302: 'Anno ab adam 4331. [corr. 4332] secundum Dionisium, anno vero Domini 381. secundum Dionisium, Olimpiadis 289. anno 4. post mortem impii Valentis imperant Gratianus et Valentianus.' For the correction from AM 4431 to AM 4332, see Chazan, *L'empire et l'histoire universelle*, pp. 163–64. This equation (AM 4332 = AD 381) runs parallel with Sigebert's earlier equation (AM 5043 = AD 1092): Sigebert of Gembloux, *Liber decennalis*, 3:63.

²⁷⁶ Sigebert of Gembloux, *Chronica universalis*, p. 314: '509: [Faustus discipulus Benedicti] scribit quoque eundem Benedictum hoc eodem anno quo Maurus ad Gallias tendebat obiisse 12.Kal. April. hora diei quasi tertia; quod eo anno in sabbato paschae proveniens, primum pascha fuisse demonstrat [. . .] Quia ergo ille scripsit, quae viderat, quomodo hoc consequentiae hystoriarum conveniat, qui valet advertat et, qui advertit, exponat.' See Chapter 2, the section on 'Abbo's Correction of the Christian Era'.

²⁷⁷ Odo of Glanfeuil, *Vita sancti Mauri*, p. 327. The author of this saint's life is not Faustus of Monte Cassino, but rather Odo of Glanfeuil.

somewhat further on Sigebert indicates that Faustus's data do not tally with this dating of 509. He had after all stated that Benedict was still alive during the reigns of Justin I (518–27) and the Vandal king Hilderic (523–30).²⁷⁸

Catalogus de viris illustribus (1111)

This survey of 172 important writers from the entire sweep of Christian history constitutes the keystone of Sigebert's literary career. Here he devotes attention to among others the chronological works of Victor of Capua, Paschasius of Lilybaeum (d. after 451), Proterius of Alexandria (d. 457), and pseudo-Cyril of Alexandria.²⁷⁹ Also interesting, however, is Sigebert's assessment of Dionysius Exiguus. With respect to the date of Christ's Passion Dionysius had after all created a lie against the gospel verity and the authoritative Latin tradition.²⁸⁰ According to Sigebert, the Dionysian era had begun either twenty-one or twenty-two years too late.²⁸¹

Furthermore it is striking that Sigebert on the one hand does mention the relatively limited impact on medieval chronology of Aldhelm of Malmesbury (d. 709)

²⁷⁸ Sigebert of Gembloux, *Chronica universalis*, p. 315: '522: Ut scribit Faustus, hac aetate, scilicet tempore Iustini senioris et Hilderici Wandalorum regis, revera floruit sanctus Benedictus. Sed nec de vita, nec de morte eius ratio procedit secundum cyclum Dionisii.' See also Odo of Glanfeuil, *Vita sancti Mauri*, ch. 1.

²⁷⁹ Sigebert of Gembloux, *Catalogus de viris illustribus*, chs 20, 24–26.

²⁸⁰ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 59: 'Hic notandum est, quia si natiuitas Christi recte a calculatoribus posita fuisset, debuisset XXXIII vel XXXIV annus primi magni anni concordare in ratione compoti euangelice veritati et maiorum auctoritati, que dicit Christum passum fuisse anno aetatis sue XXXII vel XXXIII VIII Kal. Aprilis in sexta feria et eum resurrexisse VI Kal. Aprilis in prima feria. Quod non ita positum esse in primo magno cyclo quia non attendit Dionysius, sed secundum tenorem annorum primi magni cycli apposuit et ipse annos Christi in suo cyclo, quem ut dixi incepit in repetitione secundum magni cycli, inussit sibi frontem cauterio alieni erroris et mendacii, dum culpatur, quod XXXIII vel XXXIV sui operis annus non concordat euangelica veritati in ratione compoti.'

²⁸¹ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 59: 'Unde apparet, quod natiuitas Christi posita est a calculatoribus XXI vel XXII annis tardius quam debuit.' As he had done in his *Liber decennalis* (3:58) Sigebert mentions a chronological correction of twenty-one or twenty-two years. Both corrections were based on the date of Christ's Passion according to the Latin tradition (AD 12), but the difference was the result of another issue, i.e. the age of Christ at the moment of His Passion. Sigebert chose in this case for the first option (AD 12 = 33 VA), Marianus Scottus for the second (AD 12 = 34 VA).

and Ceolfriht of Jarrow (d. 716), but at the same time says not a word about the much more important *De temporum ratione* by Bede.²⁸² He devoted little if any space to the standard chronological works of Hrabanus Maurus (d. 856) and Helperic of Auxerre.²⁸³ Nor did Sigebert mention the chronological corrections of Abbo of Fleury and Heriger of Lobbes. The first case is easily explained by the fact that he only knew Abbo as a commentator on the *Calculus* by Victorius of Aquitaine.²⁸⁴ Heriger's *Epistola ad Hugonem* was due to its contents only being mentioned in the most superficial terms.²⁸⁵ The contrast with the relatively extensive praise of Marianus Scottus is all the greater because of this. After all, in his chronicle Marianus had reconciled the Passion of Christ with the gospel verity and moreover systematically placed the erroneous Dionysian era (AD) side-by-side with the much more authentic corrected era (VA).²⁸⁶

In the end, however, Sigebert devoted by far the greatest amount of attention to his own chronological oeuvre. He had attempted to dispel the existing uncertainties with respect to the Dionysian era by means of a lucid and logical analysis.²⁸⁷ In the process he praised once again the work of his predecessor Marianus Scottus.²⁸⁸ And yet Sigebert viewed his own *Liber decennalis* as the real culmination of

²⁸² Sigebert of Gembloux, *Catalogus de viris illustribus*, chs 66–68.

²⁸³ Sigebert of Gembloux, *Catalogus de viris illustribus*, ch. 90 and ch. 146.

²⁸⁴ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 91: 'Abbo abbas Floriacensis, quantum valuerit in utraque scientia, ostendit, cum super calculum Victorii commentatus est. Martyr obiit.'

²⁸⁵ Sigebert of Gembloux, *Catalogus de viris illustribus*, pp. 90–91: 'Herigerus abbas Lobiensis [...] scripsit ad Hugonem epistulam de questionibus quibusdam.'

²⁸⁶ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 99: 'Marianus Scotus [...] scripsit chronicam a nativitate Christi usque ad annum nati Christi MLXXXII mira subtilitate ostendens errorem priorum chronographorum ita ponentium nativitatem Christi, ut annus passionis eius quantum ad rationem compoti non concordet veritati evangelice. Unde ipse apponens XXIII annos illi anno, ubi priores scribunt fuisse natum Christum, ponit in margine pagine alternatim hinc annos evangelice veritatis, illinc annos false priorum computationis, ut non solum intellectu, sed etiam visu possit discerni veritas et falsitas.'

²⁸⁷ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 105: 'Cum diligenter Beda de temporibus relegerem et ab eo notam hyronie Dionisio, cyclorum scriptori, infligi conspicerem, quia male dispositis annis dominice passionis in terminis paschalibus contraire videretur evangelio Iohannis, dignum mihi visum est altius repetendo omnem dimovere nubem erroris et verum diligentibus infundere lumen veritatis.'

²⁸⁸ Sigebert of Gembloux, *Catalogus de viris illustribus*, pp. 105–06: 'Ego autem considerans fautores Dionisii semel imbibita non leviter descire ita cautelam ingenioli mei equa lance libravi, ut

all chronological corrections, because in it he had combined all the years from the Creation to his own time in one chronological framework of ten successive 532-year cycles.²⁸⁹ This view is undeserved, for in his chronicle Marianus Scottus had also created a definitive chronological and chronographic framework extending from Creation to his own day (AM 4183 = 22 BC = 1 VA).²⁹⁰

Conclusion

The Double Discourse of Authority and Reason

The *Liber decennalis* by Sigebert of Gembloux undoubtedly constitutes one of the highpoints in the evolution of medieval chronology. Characteristic of the entire dialogue is the didactic tension between the two poles, that is, authority (*auctoritas*) and reason (*ratio*). A certain rational conclusion could be accepted as long as it was provided with the requisite authority, and vice versa. In other words, a given hypothesis had to be proven on two fronts. This double discourse of authority and reason runs like a red thread through Sigebert's *Liber decennalis*.

The dialectic tension is evident from the very beginning of Book 1. The student wants to apply the 'natural' laws of chronology in history, but his improper curiosity about the date of the Creation of the world is immediately thwarted by the master.²⁹¹ Having zoomed in on the date of Christ's Passion, the inadequacy of the Dionysian era is exposed. Sigebert attempts to soften this painful analysis by suggesting that Dionysius Exiguus had wanted to set his starting point at the beginning of the fifth and last cycle of pseudo-Cyril (AD 513 = 532 VA). In order

medium horum incedens omnes annos ab origine mundi decursos vel in futurum decursuros inspecta ratione iuxta Hebraicam veritatem colligerem, scilicet per cyclos lunares, qui XIX annis, et per cyclos solares, qui XXVIII annis concluduntur, et per alterum multiplicati magnum cyclum DXXXII annorum conficiunt, lineatim distinctis hinc inde annis Ade, epactis, concurrentibus, terminis paschalibus, diebus dominicis pasche, eadem via qua Dionisius, sed non eisdem vestigiis. Quod diligens lector facile inveniet, si curiosus fuerit. Et quia decem magnis cyclis, qui singuli DXXXII annis constant, omne opus distinxi, ipsum librum hoc titulo prenotavi, ut decennalis vocetur.'

²⁸⁹ See the 'Conclusion' to Chapter 3.

²⁹⁰ Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 105: 'Siquidem Marianus Scottus, vir suo evo longe disertus, hoc idem ingressus erat et chronicam suam texens a nativitate Christi usque ad statum sui temporis hinc annos Christi iuxta fidem evangelii, inde e regione iuxta Dionisium ordinaverat, ut diligentie lectoris pateret, quantum ipse Dionisius a veritate evangelii deviare.'

²⁹¹ Sigebert of Gembloux, *Liber decennalis*, 1:3–4.

to gain permission to embark on the search for a chronologically acceptable alternative, the director Sigebert first plays the interlocutors one against the other. The master declares that he is willing to embark on this search as long as his student assumes all responsibility for the consequences.²⁹²

Following an initial analysis in the search for a chronologically acceptable alternative, Sigebert considers the problem of the date of Christ's Passion as the result of another chronological problem, namely the position of the date of the Creation of the world in a nineteen-year lunar cycle. The master's preference is for the year in which the paschal term fell on 21 March (AM 1 = 16/19). This prompts a new discussion, however, about the exact age of the moon at the time of Creation. Initially the master considers Bede's *auctoritas* sufficient reason to accept that the moon was created as a full moon, while the student demands rational support for this position.²⁹³ Somewhat further on the roles are reversed. The master suggests that the moon could have been created as luna i, but now the student dismisses this hypothesis because it is not supported by a single *auctoritas*.²⁹⁴ Therefore the master looks for and finds in the authoritative Augustine of Hippo the implicit yet necessary proof that a 'perfect' moon need not necessarily have been created as luna xiv, but could also have been luna i.²⁹⁵

In Book 2 the master wants to pursue his theory about the Creation of the world further, from the perspective of two established facts, namely that the moon was created as luna i on 22 March and that according to the Latin tradition Christ was resurrected on 27 March (luna xvii). Consequently he dates the Creation to 278/532 (AM 1), Christ's Birth to 513/532 (AM 3960 = 21 BC = 1 VA), and Christ's Passion to 13/532 (AM 3992 = AD 12 = 33 VA). Sigebert interpolates the eight extra years with respect to Bede's Hebrew Creation era in the fifth *aetas*. Although this addition of eight years does not add up mathematically, he points out the fact that his corrected Creation era is based on the seventy prophetic weeks from the authoritative book of Daniel.²⁹⁶

A new chronological problem presents itself, however, because the world had to have been created in the first year of a 532-year luni-solar cycle (AM 1 = 1/532). Consequently the dates of Christ's Birth (AM 3960 = 236/532) and Passion (AM

²⁹² Sigebert of Gembloux, *Liber decennalis*, 1:38–39.

²⁹³ Sigebert of Gembloux, *Liber decennalis*, 1:78–79.

²⁹⁴ Sigebert of Gembloux, *Liber decennalis*, 1:102.

²⁹⁵ Sigebert of Gembloux, *Liber decennalis*, 1:135.

²⁹⁶ Sigebert of Gembloux, *Liber decennalis*, 2:25.

3992 = 268/532) had to be shifted. The question was, however, whether this shifting of the starting point of a nineteen-year lunar cycle could be accomplished chronologically. According to the student it remained unacceptable to go against an ancient and by definition authoritative tradition.²⁹⁷ In other words, reason was not (yet) supported by the necessary *auctoritas*. Moreover, such a shifting of the starting point of a nineteen-year lunar cycle also implied a shifting of the moment of the *saltus lunae*, whereby the epacts in one or more years no longer coincided with the actual age of the moon. This new hurdle led Sigebert straight to an unavoidable paradox: on the one hand the world had to have been created in one out of nineteen years of a nineteen-year cycle; on the other hand not a single cycle year met all chronological criteria. Both interlocutors consequently accepted the limitations of their powers of reason and the inscrutable nature of God's 'natural' wisdom.²⁹⁸

The significance of Book 3 has to date been underestimated.²⁹⁹ It constitutes, after all, a final attempt to breathe new life into the moribund synthesis of reason and authority. Whereas in the first two books his point of departure had been reason, from which perspective he had gone in search of the necessary *auctoritas* with which to support his rational conclusions, Sigebert employs precisely the opposite method in this third book. Thus the choice for the Latin tradition had been made long ago by the Roman Catholic Church and never questioned. Sigebert next opts logically for the position that Christ had died in His thirty-third year. He appeals to the superior *auctoritas* of Eusebius of Caesarea and Jerome of Strido, and thus controverts Dionysius Exiguus, the Venerable Bede, Heriger of Lobbes, and Marianus Scottus.

In the important third question concerning the exact duration of the seventy prophetic weeks in the book of Daniel, Sigebert gives the answer that he had promised earlier in Book 2.³⁰⁰ He calculates these seventy prophetic weeks as 475 solar years, and this period runs from the year of the reconstruction of the temple (AM 3518) up to and including the year of Christ's Passion (AM 3992). Moreover, Jesus Himself had predicted His unavoidable Passion (Matt. 24. 15). For Sigebert this biblical citation, together with the prophetic words in the book of Daniel

²⁹⁷ Sigebert of Gembloux, *Liber decennalis*, 2:33.

²⁹⁸ Sigebert of Gembloux, *Liber decennalis*, 2:64–71.

²⁹⁹ Wiesenbach considers it to be a kind of appendix in which a number of thematic questions are answered: 'Mit dem 2. Buch ist die Diskussion des neuetablierten Zeitsystems abgeschlossen' (Wiesenbach, 'Der "Liber decennalis" im Rahmen der mittelalterlichen Komputistik', p. 149).

³⁰⁰ Sigebert of Gembloux, *Liber decennalis*, 2:26.

(9.24–27), constituted the *auctoritas* which he needed to legitimate the correction he made earlier to the Hebrew Creation era (AM 3960 = 1 VA).³⁰¹

As far as his chronological correction to the Dionysian era was concerned, Sigebert had to use a different method. He followed the example of the Hebrew Creation era, which had been calculated by Jerome of Strido and only later implemented by Bede with the necessary authority. Consequently according to Sigebert it was just a matter of time before his correction of Dionysius's era, too, would acquire the necessary authority. It is a striking illustration of Sigebert's directorial skills that precisely this assertive and innovative position is put in the mouth of the student. By assuming even more emphatically the role of the master himself, Sigebert caused his readers to identify automatically with the student.

This fragment proves that Sigebert did indeed want to apply his own corrections in actual practice. Wiesenbach and Chazan erroneously claim that Sigebert would himself have considered the practical application of his theories to be unrealistic. They base their view on the preceding passage in which Sigebert states that the erroneous Dionysian era did not have to be corrected as long as it did not controvert the Christian faith (3:60).³⁰² This conservative view is corrected by Sigebert himself, however (3:61). Extra proof of this is found in Sigebert's chronicle, where he explicitly refers to his corrected Creation era (AM 3960).³⁰³ Both in the second version of his *Chronica universalis* (up to 1111) and in his *Catalogus de viris illustribus*, Sigebert makes his preference for Latin tradition crystal clear (AD 12 = 33 VA).

The Search for Intellectual Autonomy

In Sigebert's *Liber decennalis* we also find interesting references concerning the question of how (in)dependently Sigebert situated himself with respect to his chronological predecessors. Towards Dionysius Exiguus Sigebert is at times extraordinarily severe. Concerning the Dionysian era he speaks not only in terms of an aberration (*error*), carelessness (*inconsiderate*), but also of a counterfeit (*falsitas*) or even of a lie (*mendacium*).³⁰⁴ On the other hand he also makes various attempts to

³⁰¹ Sigebert of Gembloux, *Liber decennalis*, 3:55.

³⁰² Wiesenbach, 'Der "Liber decennalis" im Rahmen der mittelalterlichen Komputistik', p. 112, and Chazan, *L'empire et l'histoire universelle*, p. 177.

³⁰³ Sigebert of Gembloux, *Chronica universalis*, p. 338.

³⁰⁴ Sigebert of Gembloux, *Liber decennalis*, 1:23 and 34; 2:7, 21, and 26–27; 3:7, 58–60; and Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 59.

invoke mitigating circumstances and to underscore the good intentions of Dionysius.³⁰⁵ Nor is Sigebert an uncritical admirer of Bede. On the one hand he praises his wide reading and *auctoritas*, but on the other hand he corrects Bede's Creation era (AM 3960 instead of AM 3952), disagrees with his assessment of Jesus's age at the moment of His Passion (32.5 years instead of 33.5 years), and finally recalculates as well Bede's starting point of the seventy prophetic weeks (AM 3518 instead of AM 3529).³⁰⁶

It remains a striking fact that Sigebert was not familiar with the chronological theories of Abbo of Fleury, for — contrary to Marianus Scottus — Abbo had also proposed a chronological correction of twenty-one years and consequently could have served as the ideal model for Sigebert.³⁰⁷ The function of role model clearly did not apply to Heriger of Lobbes, who maintained a pronounced preference for the Greek tradition. It is true that Sigebert cites on one occasion Heriger's *Epistola ad Hugonem*, but he fails to mention that he is borrowing from Heriger.³⁰⁸ In his *Catalogus de viris illustribus* he is extremely vague when it comes to mentioning Heriger's chronological theories.³⁰⁹ Sigebert thus consciously avoids any explicit conflict with Heriger, be it via implicit borrowing or vague description.

The same thing happens with the figure of Marianus Scottus. In positive contexts Sigebert borrows explicitly from his predecessor, but in criticism he consciously withholds the name of this Irish chronicler.³¹⁰ Sigebert considered himself the very first writer to have cast all of history from the date of the Creation of the world, to the Passion of Christ, and on through his own day, into 532-year luni-solar cycles, although Marianus had already done this in the first two books of his chronicle.³¹¹ In the end it remains a somewhat paradoxical fact that Sigebert employed in his own chronicle once again the old system of the *contemporalitas regnorum*, and ignored the beckoning possibility of presenting, as Marianus Scottus had, a dual Incarnation era (AD and VA).

³⁰⁵ Sigebert of Gembloux, *Liber decennalis*, 1:24 and 3:88–90.

³⁰⁶ Sigebert of Gembloux, *Liber decennalis*, 1:47, 2:34, 3:23, and 3:46.

³⁰⁷ Sigebert knew only Abbo's commentary on the *Calculus* by Victorius of Aquitaine: Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 91.

³⁰⁸ Sigebert of Gembloux, *Liber decennalis*, 3:24.

³⁰⁹ Sigebert of Gembloux, *Catalogus de viris illustribus*, ch. 138.

³¹⁰ Sigebert of Gembloux, *Liber decennalis*, 3:7 and 21.

³¹¹ Sigebert of Gembloux, *Liber decennalis*, 1:2 and 3:59; Marianus Scottus, *Chronicon*, 1:7–8.

For Sigebert there existed a clear hierarchy in the use of source materials. Thus Marianus Scottus belonged to the category of the *moderni* and Bede was already an author who enjoyed a certain level of authority.³¹² Bede could still be criticized, however, whereas the pronouncements of Augustine of Hippo and Eusebius of Caesarea were by definition irrefutable due to their advanced age and *auctoritas*.³¹³ Finally, at the top of this hierarchy was perched the gospel verity of Holy Scripture, which constituted the very highest form of *auctoritas* and possessed therefore an unassailable status.³¹⁴

And yet Sigebert also made use of a new source that disrupted at least partially this pyramidal structure, this is, reason. We hasten to point out that a distinction must be made here between human reason and 'natural' reason. Sigebert introduces human reason in order to interpret existing positions sometimes more freely and to record assertively his own chronological theories.³¹⁵ On the other hand, human reason is limited by the intellectual inability to comprehend the 'natural' reason of God's Creation. In the latter case the terms *natura* and *ratio* are used as synonyms.³¹⁶ They refer to an unchanging fact that one must accept without being able to change or influence it.

At the end of his Book 2 Sigebert accepts the unattainability of natural knowledge. In Book 3 he would nevertheless imbue his corrections to the Hebrew Creation era and the Dionysian Incarnation era with the necessary authority, whereby he succeeds after all in reconciling human reason and natural reason.³¹⁷ The permanent necessity of supporting *auctoritas* remained in place, but on the other hand Sigebert resists the notion that an erroneous tradition could not be openly criticized.³¹⁸ In his view critical comments could be tolerated and even accepted as long

³¹² Sigebert of Gembloux, *Liber decennalis*, 3:7 and 1:47.

³¹³ Sigebert of Gembloux, *Liber decennalis*, 3:10 and 3:27.

³¹⁴ Sigebert of Gembloux, *Liber decennalis*, 1:123, 2:19, and 3:55.

³¹⁵ Sigebert of Gembloux, *Liber decennalis*, 1:32 and 135; 2:9 and 23–24; 3:37 and 59; and Sigebert of Gembloux, *Catalogus de viris illustribus*, pp. 103–06.

³¹⁶ Sigebert of Gembloux, *Liber decennalis*, 1:60 and 125; 2:45 and 69; 3:64–65.

³¹⁷ This explains why Sigebert writes in his *De viris illustribus* that this entire dialogue pertains to the natural aspect of philosophy: 'Prologum in morem dialogi anteposui, quem tribus thomellis divisi, indicans sub persona interrogantis et respondentis intentionem et utilitatem ipsius operis, et ad quam partem philosophie pertineat, scilicet ad phisicam. Subiunxi etiam utiles regulas inveniendi annos et terminos et indictiones secundum dispositionem ipsius' (Sigebert of Gembloux, *Catalogus de viris illustribus*, p. 106).

³¹⁸ Sigebert of Gembloux, *Liber decennalis*, 2:27.

as they were formulated according to the existing (authoritative) rules. The divide separating this reasoning from scholasticism has become wafer thin, indeed.³¹⁹

Wiesenbach therefore called Sigebert's *Liber decennalis* a striking example of a rising intellectual autonomy.³²⁰ This claim is for the most part a valid one, but requires some qualification. Sigebert did not go nearly as far as Hermann of Reichenau (d. 1054) and Gerland the Computist. These authors threw the entire pyramidal system of *auctoritas* out the window and devoted a great deal more attention to observation (*observatio*) than they did to calculation (*calculatio*).³²¹ Their new approach (*computus naturalis*) would slowly but surely undermine traditional computistics (*computus usualis*) and finally lead to the first call for a correction of the Julian calendar.

The Influence of Sigebert's Correction

To the question of the influence of Sigebert's chronological correction we are obliged to give a dual answer. As far as his *Liber decennalis* is concerned, its dissemination was extremely limited. Apart from the now-lost original, we know of only two transcriptions. A possible explanation for this lies in its high degree of difficulty and the powers of abstraction it demanded of the reader. Moreover, the issue of the erroneous Dionysian era slowly lost its topicality. The luni-solar return of Christ's Passion in the third 532-year cycle restricted itself to the period from 1076 (=AD 12) through 1097 (=AD 33) to 1106 (=AD 42).³²²

An entirely different answer, however, applies to Sigebert's *Chronica universalis*. Although the case for the Latin tradition made herein is a relatively limited portion of the whole, Sigebert's and Marianus's chronological theories were thereby disseminated in approximately forty-two manuscripts.³²³ Sigebert's chronicle formed

³¹⁹ See the Conclusion, the section on 'An Intellectual Analysis'.

³²⁰ Wiesenbach, 'Der "Liber decennalis" im Rahmen der mittelalterlichen Komputistik', p. 168: 'Ausgehend von der *auctoritas*, weisen die kritischen Komputisten der *ratio* selbständige, wenn auch begrenzte Funktion bei der Lösung der seit Beda anstehenden Probleme zu [...] Mit ihren Untersuchungen, ihrer Lust am Rechnen lösen sich die Kritiker des Dionysius vom reinen Nachvollzug der Autoritäten und verlassen den Rahmen der traditionellen Schulkomputistik. Eine Phase ausschliesslicher Wissensrezeption ist beendet. Die vorgestellten Arbeiten [...] sind Indizien intellektuellen Fortschritts.'

³²¹ Germann, *De temporum ratione*, pp. 234–44.

³²² Von den Brincken, 'Kritik an Marianus Scottus', p. 232.

³²³ Chazan, *L'empire et l'histoire universelle*, p. 311.

moreover a fundamental source for other authors, such as Helinand of Froidmont (d. 1229) and Matthew Paris (d. c. 1259).³²⁴ Some authors also made brief commentaries on these chronological theories. Radulf of Diceto (d. 1202), for example, observed in his *Abbreviationes chronicorum* that according to some contemporaries it was naive to choose the conventional Dionysian era (AD) before the corrected era of Marianus Scottus (VA).³²⁵ Radulf preferred to avoid this debate himself and endorsed the established era of Dionysius Exiguus.³²⁶ Alberic of Trois-fontaines (d. after 1252) had likewise concerned himself with this issue. Based on the fact that the Latin tradition did not occur in the Dionysian year of Christ's Passion (AD 34) he concluded that the calculation of the age of the moon at that time was not the same as the modern one.³²⁷ This made him the first author to dare to call into question the practical utility of a 532-year luni-solar cycle with respect to calculating the date of Christ's Passion.³²⁸

³²⁴ Helinand of Froidmont, *Chronicon*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 212 (Paris, 1853), cols 771–1080, (col. 909 (AD 979); col. 955 (AD 1064); col. 959 (AD 1073), and cols 963–64 (AD 1075)), and Matthew Paris, *Chronica maiora*, ed. by Henry R. Luard, *Chronicles and Memorials of Great Britain and Ireland during the Middle Ages*, 57, 7 vols (London, 1872–83), I, 238 (AD 532); I, 375 (AD 830); II, 11 (AD 1073); and II, 15 (AD 1076).

³²⁵ Radulf of Diceto, *Abbreviationes chronicorum*, ed. by William Stubbs, *Chronicles and Memorials of Great Britain and Ireland during the Middle Ages*, 68, 2 vols (London, 1876), I, 18–19: 'Si placuerint, poteris imitari, si duxeris reprobandos, vitandi sunt cum modestia. Si contraria scripserint, praecipitantis est, si vel Orosium Eusebio, vel Dionisium Mariano, vel Bedam Theophilo leviter anteponas.'

³²⁶ Radulf of Diceto, *Abbreviationes chronicorum*, I, 19: 'Sed nos, si Lino, Cleto, conservemus honorem annorum in serie, sicut eis concorditer exhibent nostri patres in canone Missae, profecto possumus vitare ruinam.'

³²⁷ Alberic of Trois-Fontaines, *Chronica*, p. 679: 'Cum igitur certissimum teneamus isto anno passum fuisse Dominum, de luna invenienda xv, viii Kal. Aprilis, nullo modo possumus evadere, quia xviii videtur occurrere, unde aut non debemus inniti huic opinioni, que dicit viii Kal. Aprilis passum fuisse Dominum, aut luna sub aliis regulis tunc temporis computabatur quam modo computetur. Evasi inter utrumque prout, et qui totiorem viam salvis auctoritatibus predictis michi ostenderit, libens et voluntarius eius in hac arte ero discipulus.'

³²⁸ Wiesenbach, 'Der "Liber decennalis" im Rahmen der mittelalterlichen Komputistik', p. 111.

HEZELO OF CLUNY (D. 1123)

Biography of a Master Architect

Concerning the life of Hezelo of Cluny very little is known with any certainty. We know that he was originally a canon in the cathedral chapter of St Lambert at Liège.¹ He probably had his high birth to thank for this important benefice. It is possible that he was even related to Pope Calixtus II (d. 1124).² In around 1083 he arrived as a monk at the famous abbey of Cluny.³ In a letter to prince Bishop Adalbero of Liège (d. 1128), Abbot Petrus Venerabilis (d. 1156) did not hesitate to praise Hezelo as an exceptionally learned and excellent magister.⁴ Hezelo was moreover renowned as a mathematician and musician of high standing.⁵

Hezelo's most significant merit was undoubtedly his contribution to the construction of the abbey Cluny III (1088–1130). As master architect he bore the

¹ Jacques Stiennon, 'Hézelon de Liège, architecte de Cluny III', in *Un Moyen Âge pluriel*, ed. by Jacques Stiennon and others, Recueil d'articles: Malmedy. Art et Histoire. Séminaire d'histoire du Moyen Âge de l'Université de Liège (Malmedy, 1999), pp. 61–80 (p. 67).

² Stiennon, 'Hézelon de Liège', pp. 69–72.

³ Carl F. Barnes, Jr, 'Hézelon of Liège', in *Dictionary of the Middle Ages*, vol. VI (New York, 1985), p. 221.

⁴ Martinus Marrier, *Bibliotheca Cluniacensis in qua SS. Patrum Abb. Clun. Vitae, Miracula, Scripta, Statuta, Priuilegia Chronologiaque duplex* (Paris, 1614), p. 794: 'multo tempore pro Ecclesia, ad quam venerat, laborans, singulari scientia et praedicabili lingua non solum audientium mores instruxit'.

⁵ Claude Lougnot, *Cluny: Pouvoirs de l'an mille* (Dijon, 1987), p. 194.

final responsibility for the construction of this impressive Romanesque abbey.⁶ He derived the proportions and symmetry he used from Vitruvius's *De architectura*, a copy of which was indeed present in the rich collection of the library at Cluny.⁷ But apart from his computistical tract, no other works by Hezelo have come down to us. We know only that he was also the author of a now lost *Vita prima sancti Hugonis Cluniacensis* (c. 1110).⁸

Hezelo's Correction of the Christian Era

Introduction

It is not until 1935 that we encounter the first reference in the scholarly record to a short computistical tract written by Hezelo.⁹ Hezelo's tract (fol. 54^v) is preserved in a tenth-century manuscript as an appendix to Bede's *De temporum ratione* (fols 1^v–52^r). The manuscript in question is Paris, Bibliothèque nationale de France, MS lat. 7297, originating at the St Laumer abbey in the duchy of Blois.¹⁰ In many instances the scribe has inserted words interlineally that had been left out, which suggests that this is a copy and not the original. Hezelo's text is here transcribed, analysed, and provided with commentary for the first time.

De nativitatis et passionis dominicae concordia (1095)

The aims of this tract are immediately apparent from the title provided above, namely to link the dates of Christ's Birth and Passion in a chronologically acceptable way. To this end Hezelo first established the number of years between Christ's Birth and His Passion, based on the fact that according to the Gospels Christ died

⁶ Kenneth J. Conant, *Carolingian and Romanesque Architecture 800–1200*, Pelican History of Art (Harmondsworth, 1979), p. 200, and Stiennon, 'Hézelon de Liège', pp. 76–79.

⁷ Kenneth J. Conant, *Cluny: les églises et la maison du chef d'ordre*, Medieval Academy of America Publications, 77 (Cambridge, MA, 1968), p. 77.

⁸ Conant, *Cluny*, p. 76.

⁹ Van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', p. 158.

¹⁰ Charles W. Jones, *Bedae Venerabilis opera*, Corpus Christianorum Series Latina, 123, 3 vols (Turnhout, 1975–80), II, 250.

on Friday luna xv.¹¹ He arrived at a result of 33.5 years and subsequently at the paschal term (luna xiv) that in the year of Christ's Passion irrefutably fell on a Thursday.¹²

Next Hezelo tried to connect these data with the Dionysian date of Christ's Birth (AD 1), which coincided with the second year of a nineteen-year lunar cycle and the tenth year of a twenty-eight-year solar cycle ($2/19 + 10/28 = 2/532$).¹³ Because such a connection proved to be impossible, Hezelo confronted his reader with a clear choice: either he continued to follow the erroneous Dionysian era, or he must be willing to accept an alternative era incorporating the corrected dates of Christ's Birth and Passion.¹⁴

Initially Hezelo pointed out the chronological incongruity of the Dionysian era. If Christ was indeed born in AD 1, then according to the Latin tradition the Last Supper would have fallen in AD 31, namely on 24 March (luna xiv).¹⁵ There are two important objections to this argument, however. Firstly, the concurrent 7 for AD 31 indicates unambiguously that the Last Supper fell on a Saturday, whereas there is no doubt that it must have fallen on a Thursday.¹⁶ Secondly, Christ would not have preached for the requisite 3.5 years if he had died in AD 31.¹⁷

¹¹ Paris, BnF, MS lat. 7297, fol. 54^v: 'Si vis ita confiteri Christum passum feriam vi luna xv iuxta quod probat auctoritas ewangelica, et universalis credit ecclesia, sicut asserit natum *fides catholica*; primum considera ab anno quo natus est usque ad annum quo passus est, competens intervallum.'

¹² Paris, BnF, MS lat. 7297, fol. 54^v: 'Hoc est spacium xxxiii annorum ac semis, et illum terminum paschalem quo cum discipulis novissimam coenam habuit eo loco constitue, ubi v feriam occurat xiiii luna.'

¹³ Paris, BnF, MS lat. 7297, fol. 54^v: 'Quod si fieri potest salva antiqua opinione qua Christus iio anno cycli decemnouenalem et xmo cycli solaris putatur natus fiat.'

¹⁴ Paris, BnF, MS lat. 7297, fol. 54^v: 'Si non potest, elige quamvis partem, aut errare de passione, conservata de ortu ipsius antiqua traditione, aut de utroque verum sentire, et hoc incertae illi opinioni praeferre.'

¹⁵ Paris, BnF, MS lat. 7297, fol. 54^v: 'Ponamus ergo Christum iuxta Dyonisium iio anno cycli xviiiinalis et x solaris natum, et videamus quod inconueniens sequatur, denique si eo anno natus est xxx primo abhinc anno, occurrit terminus ille, quo cenasse cum discipulis creditur, scilicet viiii kal. apr.'

¹⁶ Paris, BnF, MS lat. 7297, fol. 54^v: 'Sed concurrens vii, qui xiimo anno solaris cycli — qui tunc fuit — invenitur, cogit, ut non quinta feria fuisse eodem anno terminus ipse intelligatur sancto sabbato quod minime procedit, si Christus v feriam cenasse et vi expirasse et tertia die revixisse probatur.'

¹⁷ Paris, BnF, MS lat. 7297, fol. 54^v: 'Insuper iii annis ac semis post baptismum non vixit in carne, si xxxmo primo transiit.'

As a second possibility, Hezelo took as his point of departure the accuracy of the Dionysian date of Christ's Passion (AD 34), in which the paschal term (luna xiv) fell on 21 March.¹⁸ The sum of the concurrent and the paschal regular, however, revealed that this paschal term fell on a Monday instead of a Thursday ($5 + 4 = 9 - 7 = 2$).¹⁹ Hezelo consequently concluded that the Dionysian date of Christ's Passion was likewise no longer acceptable.²⁰

Ultimately, according to Hezelo twenty-two years had been lost track of over the course of time, which could possibly be ascribed to the failure to count the so-called *interregna*.²¹ Consequently the Dionysian date of Christ's Birth fell in the twenty-third year of the corrected era (AD 1 = 23 VA).²² In this way Hezelo was in complete agreement with the data as provided by the Latin tradition, namely that Christ had died on 25 March and luna xv (AD 12 = 34 VA).²³ Hezelo applied this same correction to the *annus praesens* (AD 1095 = 1117 VA).²⁴ Finally, the scribe's

¹⁸ Paris, BnF, MS lat. 7297, fol. 54^v: 'Rursus temptemus quid eveniat de passione, si ab eo anno ad xxxmum iiiiitum pertingamus qui est xvi annus cycli decennovenalis occurrit terminus paschae xii kal. apr. que concurrens illius anni xvi videlicet cycli solaris vtus.' Hezelo makes a chronological error here: while the year AD 34 is indeed the sixteenth year of a nineteen-year lunar cycle, it is only the fifteenth year of a twenty-eight-year solar cycle (15/28). Moreover, this year has a concurrent of 4 instead of 5.

¹⁹ Paris, BnF, MS lat. 7297, fol. 54^v: 'Iunge v concurrens et iiii regulares eiusdem termini fiunt viiii. Subtrahe vii remanent ii. Ergo ii feriam facta est cena, et passio tertia.' The Paschal regular for AD 34 (16/19) is indeed 4: Egied I. Strubbe and Leon Voet, *De chronologie van de Middeleeuwen en de Moderne Tijden in de Nederlanden* (Brussels, 1991), p. 41. By connecting the wrong concurrent (5 instead of 4) with the paschal regular 4, Hezelo arrives, however, at the erroneous conclusion that 21 March was a Monday (instead of a Sunday). His main argument remains valid, however, namely that the Dionysian date of Christ's Passion (AD 34) is incorrect.

²⁰ Paris, BnF, MS lat. 7297, fol. 54^v: 'Nichil utique falsius.'

²¹ Paris, BnF, MS lat. 7297, fol. 54^v: 'Igitur xxii annos compoto annorum domini subtractos antiquitus quolibet modo, siue ex intervallis ordinationum regiarum, quae forsitan neglecta fuerunt, in serie temporum, sive aliunde adic[ien]doscense.' An *interregnum* is the period between the end of one ruler's reign and the ascension of his successor.

²² Paris, BnF, MS lat. 7297, fol. 54^v: 'et Christum quo anno hactenus asserebatur natus xxmum tertium habuisse aetatis annum crede'.

²³ Paris, BnF, MS lat. 7297, fol. 54^v: 'et tunc invenies, ab anno xviiimo cycli decennovenalis et xvimo cycli solaris quo re vera natus est, in xxxmiiiiito anno competente feria et luna passionem eius viii kal. apr. cena scilicet pridie, hoc est viiii kal. celebrata'.

²⁴ Paris, BnF, MS lat. 7297, fol. 54^v: 'Annus igitur nativitatis Domini qui secundum vetustum errorem ubique tenetur et in cereis scribitur millesimus xc vtus hoc anno millesimus cmus xviiimus incunctanter habetur.'

last sentence indicates that Hezelo taught his chronological correction of twenty-two years to many of his students and colleagues.²⁵

Conclusion

Hezelo emerges from this brief tract as a very self-assured figure who formulates an 'unbreakable' chronological correction of twenty-two years. Most striking in this context is Hezelo's very direct and sometimes acerbic style. Dionysius's Incarnation era is undermined by means of mathematical precision and described without further ceremony as an old aberration. Contrary to his predecessors, he made no use of the phrase 'gospel verity', but posited simply that Dionysius was wrong. He made no mention of any mitigating circumstances, nor did he refer to Bede's ironic remark to justify his own chronological correction. Hezelo concentrated on finding a purely rational solution to this chronological problem, by linking the date of Christ's Passion to the data from the Latin tradition (AD 12 = 34 VA).

The influence of his chronological theories would appear at first glance to be modest, but should certainly not be underestimated. The scribe's final sentence makes it very clear that he informed many of his students and colleagues of his chronological correction of twenty-two years. Moreover, Hezelo was presumably behind the double Incarnation era used by Pope Urban II (d. 1099) once in his correspondence (AD 1098 = 1121 VA).²⁶ Urban II was a former prior of Cluny (1070–78) and would consecrate five altars in the new abbey church in precisely the same year as the appearance of Hezelo's tract (1095).²⁷ Finally, Hezelo's chronological correction also appears in an anonymous text from the abbey of Limoges.

²⁵ Paris, BnF, MS lat. 7297, fol. 54^v: 'Frater Hezelo sicut didicit et doctissimis sui temporis computistis sic notat.'

²⁶ Urban II papa, *Epistola ad Udalricum abbatem monasterii S. Michaelis ad Mosam*, ed. by Jacques-Paul Migne, *Patrologia Latina*, 151 (Paris, 1853), cols 500–01: 'Data Laterani VII Kal. Aprilis, anno ab Incarnatione Domini secundum Dionysium millesimo nonagesimo octavo, secundum vero certiore Evangelii probationem millesimo centesimo vicesimo primo, indictione VI, epacta XV, concurrente IV.' Please note a difference of twenty-three years, whereas Hezelo suggests a correction of twenty-two years.

²⁷ Conant, *Carolingian and Romanesque Architecture*, p. 200.

ANONYMOUS OF LIMOGES

The Abbey of St Martial at Limoges c. 1100

The history of the abbey of St Martial at Limoges can be traced to the eponymous missionary who, together with two companions, converted the region surrounding Limoges to Christianity. In the centuries that followed, the pilgrimages to his tomb became more and more popular and finally in 848 the religious in the area organized themselves into a Benedictine monastic community.¹ The successful cult of relics considerably enriched the financial and social status of the abbey of St Martial. Under the abbacy of Aimon (d. 943), Limoges associated itself spiritually with the prestigious abbey of St Benoît-sur-Loire at Fleury. Odolric of Fleury (d. 1040) would even become Abbot of Limoges in 1025. Under his rule the scriptorium flourished and the abbey library developed into a considerable collection.²

It was also in this period that Adhemar of Chabannes (d. 1034) returned from Angoulême to Limoges and participated in the cultural resurgence of the abbey of St Martial.³ He wrote among other things his history of the abbey (*Commemoratio*), completed his chronicle of Aquitainian history, and prepared the only

¹ Danielle Gaborit-Chopin, *La décoration des manuscrits à Saint-Martial de Limoges et Limousin du IX^e au XII^e siècle*, Mémoires et documents publiés par la Société de l'École des chartes, 18 (Paris, 1969), pp. 13–14.

² Gaborit-Chopin, *La décoration des manuscrits à Saint-Martial*, pp. 16–17.

³ Adhemar of Chabannes, *Chronicon*, ed. by Pascale Bourgain-Hemeryck, Richard Landes, and Georges Pon, Corpus Christianorum Continuatio Mediaevalis, 129 (Turnhout, 1999), pp. vii–viii.

surviving copy of Abbo's *Canones*.⁴ Moreover, Adhemar had a genuine interest in computistics. He made at least one autograph annotation to an existing computistical manuscript at Limoges and around 1031 he also copied Abbo's three-fold 532-year cycle.⁵ Contrary to Abbo of Fleury, however, he was an outspoken opponent of the Eusebian Septuagint era (*secundum falsitatem LXX interpretum*), and he accepted only the Bedan Creation era according to the Hebrew verity (*secundum veritatem hebraicam*).⁶

After Odolric's death, however, the abbey of St Martial would once again become entangled in a web of political bickering and fall into a twenty-five-year period of cultural hibernation. The abbacy of Ademar of Limoges (1063–1114) constituted for the abbey of St Martial a happy return to the flourishing period under Odolric. He reconciled the quarreling parties, and with the support of Pope Urban II (d. 1099) he was able to expose the claims of his great rival bishop, Humbald of Limoges (d. c. 1100). Ademar subsequently consolidated papal privileges in favour of his abbey, which once again experienced a period of prosperity. The scribes at Limoges were famous for their richly illuminated manuscripts, which may be counted amongst the masterpieces of Romanesque art.⁷ It was presumably during Ademar's rule that an anonymous author took up the study of the issue of Dionysius's Incarnation era.

An Anonymous Correction of the Christian Era

Introduction

The brief chronological tract is preserved as an appendix to an important tenth-century collection of computistical texts (Dionysius Exiguus, Bede, and Isidore of

⁴ The manuscript in question is Paris, Bibliothèque nationale de France, MS lat. 2400, fols 154–62 (s. xi): van de Vyver, 'Les oeuvres inédites d'Abbon de Fleury', pp. 126–27. In 1004 Abbo of Fleury met with the then approximately fifteen-year-old Adhemar when, on his journey to La Réole (Gascogne), he stayed at Angoulême: Aimoin of Fleury, *Vita sancti Abbonis*, ch. 17, and Adhemar of Chabannes, *Chronicon*, 3:39.

⁵ See Gaborit-Chopin, *La décoration des manuscrits à Saint-Martial*, p. 204, and Landes, 'A Libellus from St Martial of Limoges', pp. 186–89, respectively.

⁶ Landes, 'A Libellus from St Martial of Limoges', p. 186.

⁷ Gaborit-Chopin, *La décoration des manuscrits à Saint-Martial*, p. 18.

Seville).⁸ It is striking that in this compendium, compiled c. 950, we also find an interpolated version of Abbo's *Ephemerida* (fol. 126^v). This illustrates once again the close ties between the scriptoria of Fleury and Limoges.

Landes attributes this text to Abbo of Fleury.⁹ Close study of its contents reveals that this theory is no longer tenable. The evidence shows that the anonymous author was not aware of Abbo's chronological corrections. This finding makes it rather unlikely that the anonymous correction dates to the period of Odolric's abbacy (1025–40). Moreover, the author gave his commentary the revealing title *Veteris quaestionis nova solutio* (A new solution to an old problem). It is clear that he knew that this chronological problem had been studied previously, but regarded his own theory as a new solution.

This anonymous text was thus probably composed in the second half of the flourishing abbacy of Ademar of Limoges (1063–1114). This famous abbot had after all been successful in once again consolidating the frequently tested bonds with the great abbey of Cluny.¹⁰ It is therefore certainly not unlikely that at precisely this period the abbey of St Martial came into contact with the chronological corrections of Hezelo of Cluny (1095).¹¹ This hypothesis is supported not only by the correction of twenty-two years, but especially by the similarities in argumentation.

Veteris quaestionis nova solutio (after 1095)

In this brief treatise the author begins with the logical proposition that Christ's Resurrection is celebrated on a Sunday because of the fact that Christ was resurrected on this same day of the week.¹² Because the Last Supper coincided with the Jewish pascha, the Last Supper fell on a Thursday (luna xiv).¹³ In this succinct

⁸ The manuscript in question is Paris, Bibliothèque nationale de France, MS lat. 5239, fol. 236^v (s. xmed).

⁹ Landes, 'A Libellus from St Martial of Limoges', p. 184 n. 22.

¹⁰ Gaborit-Chopin, *La décoration des manuscrits à Saint-Martial*, p. 17.

¹¹ See Chapter 6, the section on 'Hezelo's Correction of the Christian Era: *De nativitatis et passionis dominicae concordia* (1095)'.

¹² Paris, BnF, MS lat. 5239, fol. 236^v: 'Dominicae resurrectionis diem idcirco sollempniter celebramus, quod redemptorem nostrum in illa surrexisse credimus.'

¹³ Paris, BnF, MS lat. 5239, fol. 236^v: 'Si in ipsa surrexit procul dubio sabbato in sepulcro quieuit, feria vi passus est, quinta vero feria significantium pascha celebravit luna videlicet tunc existente xiiii iuxta legis mosaicae traditionem.' The view of Mosaic law on this is to be found in Exodus 12. 6–8.

fashion our anonymous author expresses the gospel data concerning the date of Christ's Passion.

Table 45

<i>Year of Christ's Passion</i>		
Last Supper	Maundy Thursday	luna xiv
Christ's Passion	Good Friday	luna xv
Repose in the tomb	Holy Saturday	luna xvi
Christ's Resurrection	Easter Sunday	luna xvii

By way of supplementing this chronological chart, the author next once again refers to the Gospels. Luke had claimed that when Christ began to preach He was thirty years old (Luke 3. 23), and in the Gospel according to John we learn that Christ died in the fourth year of His preaching.¹⁴ Consequently thirty-three years and three months must have transpired between Christ's Birth and Christ's Passion on Friday (luna xv).¹⁵

Our anonymous author next tries to determine whether this theory could be applied to the existing Dionysian era.¹⁶ He put the date of Christ's Birth in the second year of a Dionysian 532-year cycle, namely the second year of a nineteen-year lunar cycle and the tenth year of a twenty-eight-year solar cycle with an epact 11 and concurrent 5 ($AD\ 1 = 2/532 = 2/19 + 10/28$).¹⁷ When he counts thirty-three years further from there, he arrives at the thirty-fifth year of a Dionysian 532-year cycle, namely the sixteenth year of a nineteen-year lunar cycle and the fifteenth

¹⁴ Paris, BnF, MS lat. 5239, fol. 236^v: 'Si vero Ihesus post baptismum — quod tricesimo etatis suae anno iuxta fidem euuangelii suscepit — per tres annos praedicavit et quarto anno passus est.' Note that Luke writes only that Jesus was *approximately* thirty at that moment. John does indeed mention four separate paschas during the period of Jesus's preaching, namely at the time of the clearing of the temple (2. 13), the healing of the lamb (5. 1), the multiplication of the five loaves (6. 4), and the resurrection of Lazarus (12. 1).

¹⁵ Paris, BnF, MS lat. 5239, fol. 236^v: 'congruum videtur ut dies nativitatis eius in talibus ciclis ponatur quatinus in praedicta v feria luna occurrat xiiii, computatis tamen annis xxxiii inter diem nativitatis et passionis, addita insuper iiii parte quarti anni'.

¹⁶ Paris, BnF, MS lat. 5239, fol. 236^v: 'Quod si cum numero annorum Domini qui in cereis generaliter ascribitur concordaverit, bene. Sin autem constat quod in ipso annorum numero error latet[ur], proinde.'

¹⁷ Paris, BnF, MS lat. 5239, fol. 236^v: 'Si numerum ipsum — qui videlicet a dionisio romano abbate primum collectus est — diligenter considerare voluimus, iuxta ciclum ipsius dionisii dominica nativitas anno secundo cicli xviii occurrit, qui scilicet habet epactas xi, anno vero x cicli solaris, qui concurrentes habet v.'

year of a twenty-eight-year solar cycle with concurrent 4 and epact 15 ($AD\ 34 = 35/532 = 16/19 + 15/28$).¹⁸ In that same year the paschal term fell on Sunday 21 March (luna xiv). Consequently according to this theory, Dionysius Exiguus had dated the Passion of Christ to Monday 22 March (luna xv) and the Resurrection of Christ to Wednesday 24 March (luna xvii).¹⁹ The date of the Resurrection could also not be moved to Sunday 28 March (luna xxi), because the martyrologies had clearly stated that the Resurrection had taken place on 27 March.²⁰

Thus the anonymous author reveals his preference for the Latin tradition and proves to be in possession of all the chronological data necessary to look up the 'real' date of the Incarnation and Passion of Christ in a 532-year Dionysian cycle. Dionysius Exiguus's error was now clearly revealed.²¹ The chronological correction entailed adding twenty-two years to the Dionysian era. The date of the Birth of Christ was shifted to AD 22 and became the eighteenth year of a nineteen-year lunar cycle and the sixteenth year of a twenty-eight-year solar cycle ($1\ VA = 512/532 = 18/19 + 16/28$).²² The date of Christ's Passion was then set at AD 12 as the twenty-first year of a twenty-eight-year solar cycle and the thirteenth year of a nineteen-year lunar cycle ($34\ VA = 13/532 = 13/19 + 21/28$).²³

Table 46

	$x / 532$	<i>AD</i>	<i>VA</i>
° Christ	512/532	AD 22	1 VA
† Christ	13/532	AD 12	34 VA

In the year of Christ's Passion according to the Latin tradition the Last Supper had thus indeed taken place on Thursday 24 March (luna xiv), Christ's Passion on

¹⁸ Paris, BnF, MS lat. 5239, fol. 236^v: 'Quos annos si extendas usque ad xxxiii - quod xxxiii anno christus passus fuit nativitatis suae - habebis in ipso anno passionis eius concurrentes iiii qui sunt in xv anno cicli solaris, epactas vero xv quae sunt xvi anno cicli lunaris.'

¹⁹ Paris, BnF, MS lat. 5239, fol. 236^v: 'In ipso quoque anno occurret tibi terminus pasche xii kl. apr. in prima scilicet feria et xi kl. apr. — id est in secunda feria — passio dominica et viiii kl. apr., hoc est in iiiia feria, dominica resurrectio.'

²⁰ Paris, BnF, MS lat. 5239, fol. 236^v: 'Quae non nisi in dominica die debet occurrere, quod etiam in martirologiis vi kl. apr. ascribitur.' In this same manuscript we find a martyrology with the date of Christ's Passion according to the Latin tradition: Paris, BnF, MS lat. 5239, fols 129^r–134^v.

²¹ Paris, BnF, MS lat. 5239, fol. 236^v: 'Unde cuius liquido patet in computatione annorum domini errorem increvisse.'

²² Paris, BnF, MS lat. 5239, fol. 236^v: 'Verum, si ipsorum numero annorum xxii adduntur, inveniatur christus fuisse natus, lunae bis non, solis quarto quater anno.'

²³ Paris, BnF, MS lat. 5239, fol. 236^v: 'Hoc ter septeno passus, lunaeque tredeno.'

Friday 25 March (luna xv), and Christ's Resurrection, finally, on Sunday 27 March (luna xvii).²⁴ The latter was in complete agreement with the dating reflected in the martyrologies.

Conclusion

In this anonymous text we encounter a number of similarities with Hezelo of Cluny's chronological tract. Both authors formulated a chronological correction of twenty-two years (AD 12 = 34 VA), and they both explicitly calculated a period of over thirty-three years between Christ's Birth and His Passion. Moreover, neither of these texts contains a reference to the phrase 'gospel verity' or to Bede's ironic remark. It is also noteworthy that like Hezelo the anonymous author dates every important year in a nineteen-year lunar cycle (x/19) and in a twenty-eight-year solar cycle (x/28). These pieces of evidence are of course insufficiently convincing when taken individually, but considered as a whole they do seem to point to the possible influence of Hezelo upon our anonymous author of Limoges.

On the other hand, we must also call attention to a number of differences between the two texts. Hezelo made a chronological error of calculation by linking the year AD 34 (35/532) with concurrent 5 and consequently erroneously dating the paschal term to a Monday. This anonymous author of Limoges did, however, conclude correctly that the paschal term in AD 34 did indeed fall on a Sunday. It is also striking that this anonymous computist, contrary to Hezelo, refers explicitly to the existing martyrologies in order to bolster his preference for the Latin tradition. This latter point of difference can be accounted for, however, by the fact that the manuscript in question at Limoges also contained a martyrology.

All in all it is not inconceivable that this anonymous was influenced directly or indirectly by Hezelo. We have certain knowledge that Hezelo disseminated his chronological theories amongst his students and colleagues. If we take into consideration the intense relations between Cluny and Limoges at the end of the eleventh century, then it is certainly possible that Hezelo's correction in this anonymous author's version was disseminated at Limoges.

²⁴ Paris, BnF, MS lat. 5239, fol. 236^v: 'Sicque dominicam cenam patebit evenisse viiii kl. apr. v feria cum xiiii luna occurrente, in eadem die passionem vero viii kl. apr. et resurrectionem vi kl. apr. sicut in martirologiis universaliter annotatur.'

HEIMO OF BAMBERG (D. 1139)

Bamberg as a Centre for the Study of Chronology

In the cathedral city of Bamberg around the year 1100, there was a flourishing interest in the study of the quadrivium in general, and chronology in particular. This tradition was initially stimulated by Frutolf of Michelsberg and reached its zenith with the publication of the chronicle by his student Heimo of Bamberg.¹ Together with Thiemo (d. 1119), the former prior and armarius of Michelsberg, Frutolf compiled various works on chronology and music theory.² In the course of this work he borrowed extensively from the chronological works of Hermann of Reichenau (d. 1054).³ Frutolf's lasting fame, however, would be largely due to his chronicle (c. 1102). There he corrected Bede's Hebrew Creation era by ten years (AM 3962 instead of AM 3952), but he did not concern himself with the accuracy of the Dionysian era.

In 1122 a certain Bernard asked to be admitted to the monastic community of Michelsberg. This ascetic scholar of Spanish descent gave new impetus to the chronological activities at Bamberg. We know from the *Vita Ottonis Bambergensis* by Ebbo of Michelsberg (d. 1159) that Bernard participated in extensive discussions with Heimo concerning the date of Creation and the precise dates of Christ's

¹ Meyer, 'Weltchronistik und Computus', p. 259.

² The manuscript in question is Karlsruhe, Badische Landesbibliothek, MS 504 (c. 1100). Frutolf's correction of the Hebrew Creation era is also explicitly mentioned in this manuscript (fol. 164): Meyer, 'Weltchronistik und Computus', pp. 246–48 and p. 253.

³ Gisela Koch, 'Die Bamberger Überlieferung des Computus von Hermann von Reichenau', *Bericht des Historischen Vereins für die Pflege der Geschichte des ehemaligen Fürstbistums Bamberg*, 102 (1966), 89–125 (p. 94 and p. 107).

Birth and Passion.⁴ From Heimo's writings we also know that Burchard (d. 1149), later prior of Michelsberg, and Dudo of Bamberg (d. after 1155), then scholaster at the church of St Peter, shared this interest in computistics.⁵ Heimo, then, found himself without doubt in an intellectually stimulating environment in which to commit his chronological theories to parchment.⁶

Not much more is known, however, about the life of Heimo of Bamberg. He was a student of Frutolf and probably received his intellectual training in nearby Michelsberg.⁷ In 1108 we find the first reference to him as a canon of the chapter of St James, which was situated just outside the walls of Bamberg.⁸ Via Ebbo we know that Heimo wrote many works, but of his entire oeuvre only his chronicle (1135) has come down to us.⁹ In this chronicle Heimo refers more than once to a *Computus* written earlier but then lost (before 1135).¹⁰ Finally, we know from the

⁴ Ebbo of Michelsberg, *Vita sancti Ottonis episcopi Bambergensis*, ed. by Georg Waitz, *Monumenta Germaniae Historica, Scriptores*, 12 (Stuttgart, 1968), pp. 822–83 (p. 842): 'Nam et venerabilis Heimo presbyter, canonicus sancti Jacobi, qui multa nobis ingenii sui monumenta reliquit, ab eodem Christi, servo multa didicit de arte calculatoria, quae prius apud vulgatos computistas obscura et intricata ne dicam falsata invenerat. Sed et de annis ab origine mundi usque ad passionem Christi, ac deinde de annis Domini usque ad nostrum tempus diligenter cum eo contulit, quoniam supputationem eorum secundum vulgatos chronographos ewangelicae veritati et auctoritati nullo modo concordare scribat. Unde et ipse venerabilis frater noster Heimo, mirabilium editor operum, in prologo cuiusdam libri sui de Bernhardo scribens inter cetera ait: "Benedictus Deus omnipotens, quoniam per hominem illum prestitit michi multa audire et discere, quae prius ignorabam, non tantum de cronica supputatione, sed et de misteriis et rationibus paschalis observantiae, immo de omni inter nos oborta questione." Ebbo's citation in this passage is from a now-lost work by Heimo, probably his *Computus* (before 1135).

⁵ Munich, Bayerische Staatsbibliothek, MS Clm. 2, fol. 18^v: 'Meministine, frater et compresbiter in Christo Iesu dilectissime Burcharde, compotistarum nostri temporis studiosissime, mutuae et frequentis nec non familiaris nostrae collationis? [...] Deinde cum tibi visum fuerit magistro nostro Dudoni viro litteratissimo et talium rerum perspicacissimo examinandum et corrigendum pariter offeramus.'

⁶ Little manuscript evidence of an interest in chronology at Bamberg has survived. The most important are Karlsruhe, MS 504 and Nurnberg, Germanisches Nationalmuseum, MS 7062–7063 (s. XII).

⁷ Munich, Bayerische Staatsbibliothek, MS Clm. 18769, fol. 10^v: 'Sed nec inde se absolvit magister noster pie memorie Frutolfus.'

⁸ Von den Brincken, 'Die Welt- und Inkarnationsära', p. 168.

⁹ Ebbo of Michelsberg, *Vita sancti Ottonis*, p. 842: 'Nam et venerabilis Heimo presbyter, canonicus sancti Jacobi, qui multa nobis ingenii sui monumenta reliquit.'

¹⁰ Munich, MS Clm. 18769, fols 9^v, 53^v, and 81^v: 'De qua diversitate compotu Hebreorum et Christianorum uberius in compoto nostro agitur [...] sicut in compoto nostro in explanatione cicli

necrology of the abbey of St Michael that Heimo died on 31 July 1139.¹¹ We may conclude from a passage from Book IV of his chronicle that at the time he had already been suffering for a number of years from chronic illness.¹²

Heimo's Correction of the Christian Era

Introduction

Heimo's chronicle survives in two different versions, both of which he wrote in 1135. The first version (*editio prior*) is preserved in Munich, Bayerische Staatsbibliothek, MS Clm. 2, fols 18^r–102^v, a manuscript that was copied the very same year in Bamberg and around 1137 ended up in Augsburg. The second version (*editio posterior*) is found in Munich, Bayerische Staatsbibliothek, MS Clm. 18769, fols 8^v–132^r, a late twelfth-century manuscript from Tegernsee. A second manuscript containing this *posterior* version was destroyed in a fire in 1870, namely Strasbourg, Bibliothèque nationale et universitaire, MSE.11 (s. XII). A first incomplete edition of Heimo's chronicle appeared in 1869, when Philippus Jaffé published the two prologues and a few freestanding fragments from the fourth, fifth, and seventh books under the title *Chronographia seu de decursu temporum liber*.¹³ Nearly a century later Anna-Dorothea von den Brincken published several important fragments from the first, fourth, fifth, sixth, and seventh books in her article on Heimo's chronicle, under the title *Chronographia*.¹⁴ Nevertheless we find in both manuscripts a more accurate and original title, namely *Consideratio annorum seculi et Christi*

paschalis Dionisii ostendimus [...] de sequentibus vii versibus in compoto nostro satis tractavimus, ubi pascalem ciclum Dionisii explanavimus. Unde quod ibi pleniter dictum est, nec istic breviter comprehendi potest.'

¹¹ *Necrologium s. Michaelis*, ed. by Philippus Jaffé, Bibliotheca rerum germanicarum, 5 (Berlin, 1869), pp. 566–79 (p. 575).

¹² Munich, MS Clm. 18769, fol. 63^r: 'vere sciens me cordetenus sibi congaudere, si forte occasione, huius mee inquisitionis excitatus, per Dei gratiam certum inveniatur, quod mihi infirmitatis torpore caliganti, nondum manifesto constat'.

¹³ Heimo of Bamberg, *Chronographia seu de decursu temporum liber*, ed. by Philippus Jaffé, Bibliotheca rerum germanicarum, 5 (Berlin, 1869), pp. 541–52.

¹⁴ Heimo of Bamberg, *Chronographia*, ed. by Anna-Dorothea von den Brincken, in 'Die Welt- und Inkarnationsära bei Heimo von St.-Jakob: Kritik an der christlichen Zeitrechnung durch Bamberger Komputisten in der ersten Hälfte des 12. Jahrhunderts', *Deutsches Archiv für Erforschung des Mittelalters*, 16 (1960), 155–94 (pp. 171–93).

Iesu.¹⁵ Unfortunately, I finished the entire analysis of Heimo's oeuvre before the date of publication of the edition by Hans Martin Weikmann in 2004. The results of this analysis, therefore, must be compared to the edition by Weikmann.¹⁶

Heimo's first version consisted of a foreword, the chronicle proper in twenty-six chapters, and an Easter table extending from the Creation of the world (AM 1) to the final year of the third 532-year Dionysian cycle (AM 5620 = AD 1595). The second and more extended version was provided with a new foreword and divided into seven different books. A separate study would be needed to identify and analyse systematically all the differences between the two versions. With the exception of the prologue, for this study we have used the more complete *posterior* version.

Consideratio annorum seculi et Christi Iesu (1135)

Prologus (editio prior)

In this prologue of the prior version Heimo addresses Burchard of Michelsberg, whom he describes as the most accomplished chronologist of his day.¹⁷ He refers to the innumerable discussions that he had enjoyed with Burchard concerning the precise date of the Incarnation of the Lord and the exact date of the Creation of the world.¹⁸ Both of them had arrived at the inevitable conclusion that the existing rules of thumb concerning these two questions their own teachers had provided them conflicted with the gospel verity and the Catholic faith.¹⁹ Consequently

¹⁵ See Munich, MS Clm. 2, fol. 18^{r-v}, and Munich, MS Clm. 18769, fol. 8^v, respectively.

¹⁶ Heimo of Bamberg, *De decursu temporum*, ed. by Weikmann.

¹⁷ Munich, MS Clm. 2, fol. 18^r: 'Meministine frater et compresbiter in Christo Iesu dilectissime Burcharde compotistarum nostri temporis studiosissime, mutuae et frequentis nec non familiaris nostrae collationis?'

¹⁸ Munich, MS Clm. 2, fol. 18^r: 'Meministine, inquam, quam sepe turbati sumus et conquesti de regulis quas magistri nostri calculatores et verbis nobis tradiderunt et scriptis reliquerunt, scilicet de inveniendis annis ab incarnatione Domini nec non ab origine mundi.'

¹⁹ Munich, MS Clm. 2, fol. 18^r: 'quod videlicet sint nimis perplexae ad intellegendum, et tandem postquam discussae et perviae sint intellectui, nullatenus tamen consonent evangelicae veritati et catholicae fidei et ecclesiasticae assertioni, sicut tibi notissimum et probatissimum est, et cuilibet animadvertere volenti patere poterit?'. Heimo is referring here to the rules of thumb in the so-called Bamberg *Computus* (1100). Heimo's phrasing clearly indicates that this *Computus* was written by the teachers of Heimo and Burchard (*magistri nostri*). The men in question may well have been Frutolf and Thiemo of Michelsberg. Their interest in computistical matters is familiar to us from Karlsruhe, MS 504. Von den Brincken is, however, inclined to attribute this *Computus*, erroneously, to Heimo himself: von den Brincken, 'Die Welt- und Inkarnationssära', pp. 167–69.

Heimo expressed his intention to search for a definitive solution to these chronological problems.²⁰

After a thorough study of several chronicles, however, Heimo was amazed at the large mutual discrepancies and even contradictions.²¹ He took solace, however, in the Gospel according to Luke, in which Christ says that those who seek shall find (Luke 11. 10).²² Therefore he decided to put aside the corrupt data from the chronicles and to depend exclusively on the Scriptures and texts by the Church Fathers.²³ He wished to present the results of this search to Burchard first, and then, with his approval, to Dudo of Bamberg.²⁴ If Dudo, too, concurred with Heimo's findings, the chronicle would then be made available to one and all.²⁵

Heimo explicitly asked Burchard to study his chronicle thoroughly. He was very much aware of the innovative nature of his endeavour and feared that Burchard would perhaps regard his findings as insufficiently serious.²⁶ At the same time he asked him to look for alternative solutions, for ultimately the most important thing was that the truth about these issues be revealed.²⁷

²⁰ Munich, MS Clm. 2, fol. 18^r: 'Tuis itaque hortationibus nec non proprii desiderii impetu accensus, easdem regulas diligentius considerare praesumens, diversa cronographorum scripta curiosius legi et relegi.'

²¹ Munich, MS Clm. 2, fol. 18^r: 'Sed ut verum fatear, tanta eorum diversitate et etiam contrarietate affectus sum, ut multotiens me incepti mei tederet.'

²² Munich, MS Clm. 2, fol. 18^r: 'Tandem rediens in me, dixi in corde meo: Nonne Christus Iesus veritas dicit: "Omnis qui petit accepit, et qui querit invenit, et pulsanti aperietur"? Noli ergo tedere vel deficere, noli a proposito desistere; pete, quere, pulsa, et certe Christo donante veritas quam desideras offeretur tibi ultronea.'

²³ Munich, MS Clm. 2, fol. 18^r: 'Quapropter diversissimis et multiplicibus, interdum etiam per numeros vitio scriptorum corruptissimis cronograforum scriptis depositis, solis canonicis utriusque testamenti paginis inhesi, admissis paucis sanctorum patrum certioribus documentis.'

²⁴ Munich, MS Clm. 2, fol. 18^r: 'et quid ex illis colligerim, tibi quam primum secreto considerandum praesento. Deinde cum tibi visum fuerit magistro nostro Dudoni viro litteratissimo et talium rerum perspicacissimo examinandum et corrigendum pariter offeramus.'

²⁵ Munich, MS Clm. 2, fol. 18^r: 'Postremo, si ipse censuerit, caeteris quoque amicis nostris videndum et legendum non negemus.'

²⁶ Munich, MS Clm. 2, fol. 18^r: 'Rogo autem te quisquis a gravioribus feriat ista digneris respicere et percurrere, ut idcirco non statim me derideas, si te forte offendat huius considerationis novitas.'

²⁷ Munich, MS Clm. 2, fol. 18^r: 'immo mecum queras, et si quid melius tibi querenti Dominus revelaverit, illi condignas grates referas, mihi vero indulgeas, qui haec scribens et occasionem diligentioris inquisitionis tibi praebeo, et te invenire quod ego minus potui non invideo, potius cordetenus congaudeo, optans, ut si non per me saltem per te huius rei aliqua veritatis certitudo eluscescat.'

Prologus (editio posterior)

In the prologue of this revised version Heimo refers to the prior version, which shortly before he had presented to Burchard for his approval.²⁸ There he had already mentioned that the rules of thumb for calculating the dates of the Creation of the world and the Birth of Christ conflicted with the gospel verity and patristic literature.²⁹ Compared to the first version, he discarded superfluous repetitions and elaborated upon obscure passages.³⁰ Moreover, in this revised version he wished to respond to the fact that a copy of his first, unedited version had been made without his permission.³¹

It is difficult to determine precisely what kind of criticism Heimo received from Burchard and Dudo, but in this second prologue the description of his work is at any rate a good deal more concrete and structured. The chronicle deals with the period extending from Creation to his own day.³² Heimo writes next that he wished to show that Christ did indeed die as per the Latin tradition on 25 March, and more specifically on luna xv according to the Jews, which, however, had been calculated

²⁸ Munich, MS Clm. 18769, fol. 8^r: ‘ad fratrem et compresbiterum Burchardum monachum sancti Michahelis paulo ante scripsi librum de decursu temporum ab origine mundi usque ad nostrum tempus’.

²⁹ Munich, MS Clm. 18769, fol. 8^r: ‘ostendens in eo quare cronica supputatio modernorum quorundam cronograforum et etiam regulae de annis Domini vel ab initio mundi seculi inveniendis, inculcate nobis a maioribus nostris, non concordent ewangelicae veritati et sanctorum patrum auctoritati’. The terminology of this passage strongly resembles the critical comment in the penultimate chapter of the Bamberg *Computus*: ‘Verumtamen haec regula annorum ab origine mundi, et annorum ab incarnatione Domini licet sit a plerisque compotistis usitata et tradita nullo modo tamen est ewangelicae fidei et veritati et sanctorum priorum patrum auctoritati consona, quae dicunt Dominum Iesum Christum viii kal. apr. crucifixum feria via luna xva et vi kal. apr. resurrexisse, die dominica luna xviii’ (Munich, MS Clm. 2, fol. 86^v).

³⁰ Munich, MS Clm. 18769, fol. 8^r: ‘In quo libro quoniam in locis quaedam superabundabant quedam brevius et obscurius posita fuerant.’

³¹ Munich, MS Clm. 18769, fol. 8^r: ‘et tamen ante debitam castigationem idem liber contra voluntatem meam a quibusdam transscriptus erat, placuit mihi in retractationem illius hunc librum conscribere, ut videlicet quicquid in illo minus provisum fuerat, vel ex me scribente, vel ab alio quolibet ante retractationem transcribente, id in isto castigatius et emendatius ac planius inveniri valeat’. Heimo is probably referring here to Munich, MS Clm. 2, fols 18^v–102^v, which was copied at Bamberg in 1135 and moved c. 1137 to Augsburg.

³² Munich, MS Clm. 18769, fol. 8^r: ‘Est autem materia huius libri continuus annorum decursus, a principio mundi usque ad nostrum tempus.’

as luna xiv by the Greeks and Romans.³³ This important sentence comprises at once the core of Heimo's chronological correction. He declares himself to be in accord with the Latin tradition, but reinterprets the lunar parameter that holds that Christ died on luna xv. Using this piece of evidence as his point of departure, he sought to connect once again the dates of Creation and Christ's Passion both chronologically and chronographically.³⁴ Thanks to such an intervention, the faulty Dionysian era would no longer be a possible cause for heretical interpretations.³⁵

Subsequently Heimo presents the seven part structure of his chronicle.³⁶ The first book deals with Old Testament history from Creation to the Passion of Christ.³⁷ The second book treats the same period, but focuses in on the five empires of the time (Assyrians, Sicioni, Egyptians, Romans, and Albani).³⁸ In the third book Heimo once again studies the pre-Christian period, but this time via the lens of the seventy prophetic weeks from the book of Daniel.³⁹ From the fourth book

³³ Munich, MS Clm. 18769, fol. 8^r: 'Intentio est: a luna xiiiia, sicut est primitus creata in iiiiit feria xii kal. aprilis descendendo ostendere fuisse lunam xiiiia secundum Latinos et Graecos, sed xvam secundum Iudeos in octavis kal. aprilis, quando passus est Dominus, et econtra ascendendo, a luna xiiiia luna primi mensis quae est terminus paschalis anni presentis, nichilominus fuisse lunam xiiiia secundum nos Christianos, sed xvam iuxta Hebreos, in die dominicae passionis feria via sicut testantur evangelia, in viii kal. aprilis iuxta sanctorum patrum traditionem.'

³⁴ Munich, MS Clm. 18769, fol. 8^r: 'concordantibus sibi omni modo et annorum seculi per vi aetates mundi cronica et autentica supputatione, et cyclorum que prorsus in epactis et concurrentibus fundatur ratione'.

³⁵ Munich, MS Clm. 18769, fol. 8^{r-v}: 'Utilitas est: ut legentes et cognoscentes concordiam cronice supputationis seculi, et rationis cyclorum, caveant sibi a falsorum computistarum et cronographorum errore, per quem ipsi non animadvertentibus, ac etiam nolentibus heresis contra fidem catholicam suboriri et surrepere curiosi et infirmis poterit, sicut in ipso contextu operis huius planissime apparebit.'

³⁶ Munich, MS Clm. 18769, fol. 8^v: 'Qualitas vero tractatus istius talis est: Distinctus est in septem partes.'

³⁷ Munich, MS Clm. 18769, fol. 8^v: 'Et prima pars secundum divinum canonem continet annos v aetatum, ab initio seculi usque ad passionem Christi in xvi capitibus.'

³⁸ Munich, MS Clm. 18769, fol. 8^v: 'Secunda colligit tempora quinque regnorum, sibi concurrentium vel succedentium, scilicet Assiriorum, Sicioniorum, Aegyptiorum, Romanorum, Albanorum, ab in[i]ciis ipsorum usque ad passionem Christi in vii capitibus.' The term *Sicioni* is derived from Sycion, a Greek city north-west of Corinth. The term *Albani* is derived from *Alba longa*, the mother city of Rome. Both realms occur in the *contemporalitas regnorum* in the chronicle of Eusebius and Jerome.

³⁹ Munich, MS Clm. 18769, fol. 8^v: 'Tercia in prophetis ebdomadibus Danielis exponit annos a principio regni Persarum usque ad passionem Christi, et nichilominus ab initio seculi usque ad fundationem Romanae ecclesiae in xiii capitibus.'

on, Heimo then shifts over to the sixth *aetas*, which he divided into regnal years.⁴⁰ The fifth book deals as well with this Christian period, but now according to a division by pontifical years.⁴¹ Finally, the sixth and seventh books consist of an extended Easter table (AM 1 – AM 5620) for the pre-Christian and Christian periods, respectively.⁴² Heimo concludes this second prologue with the wish that, as author of this chronicle, he will be remembered in a positive light.⁴³

Liber primus: Ab initio seculi usque ad passionem Christi

In the first chapter of his first book Heimo formulates five basic theses which will form the foundation for all of his further arguments. He writes that the Last Supper had taken place on luna xiv, that Christ was crucified on the next day, and that He was resurrected on luna xvii.⁴⁴ Next Heimo connects these three lunar facts with the Latin tradition of Jerome of Strido and Augustine of Hippo, both of whom had stated that Christ had died on 25 March.⁴⁵

⁴⁰ Munich, MS Clm. 18769, fol. 8^r: 'Quarta comprehendit annos sexte aetatis per tempora imperatorum Romanorum, a passione Domini usque ad nos in v capitibus.'

⁴¹ Munich, MS Clm. 18769, fol. 8^v: 'Quinta colligit et concordat annos Romanorum pontificum et Romanorum principum in xi capitibus.'

⁴² Munich, MS Clm. 18769, fol. 8^v: 'Sexta digerit testamentum humane servitutis et miseriae, contractum per inoboedientiam protoplastorum Adam et Evae. Septima proponit testamentum Christianae libertatis, conscriptum victorioso sanguine Christi Iesu, et confirmatum gloriosa eius resurrectione.'

⁴³ Munich, MS Clm. 18769, fol. 8^v: 'Haec breviter ideo praelibare placuit, ut si cui ab aliis maioribus feriant istud quoque opus quaecumque perspicere collibuerit, in prologo praediscat quid ei in sequentibus expectandum sit, precorquē ut mei peccatoris in bono reminisci velit.'

⁴⁴ Munich, MS Clm. 18769, fol. 8^v: 'Credimus et nullatenus dubitamus secundum iiiior evangelia Dominum Iesum Christum xiiiiia luna aprilis secundum Hebreos, pascha legale cum discipulis suis fecisse, quo peracto, in eadem nocte a Iudeis comprehensum fuisse et in sequenti die luna xva feria vi, que hebraice dicitur parasceve, hora vi crucifixum, in sabbato vero in sepulchro quievisse, tertia die scilicet, prima sabbatorum quam Christiani diem dominicam nominant, a mortuis resurrexisse, luna xviiia.'

⁴⁵ Munich, MS Clm. 18769, fols 8^v–9^r: 'Item sicut tradunt sancti patres, Ieronimus, Augustinus et tota tenet ecclesia, idem Christus Iesus viii kal. apr. conceptus est, viii kal. ian. natus est, et peracto humanitatis suae sacramento viii kal. apr. passus est, vii kal. apr. fuit in sepulchro, vi kal. apr. resurrexit.' See also pseudo-Jerome of Strido, *Martyrologium Hieronymianum*, (25 March); Augustine of Hippo, *De civitate Dei*, 18:54; Augustine of Hippo, *De trinitate*, 4:5; and Augustine of Hippo, *Quaestiones in Heptateuchum*, 2:90.

Thirdly, based on Jewish, Greek, and Latin texts, Heimo determined that the world was created on 18 March.⁴⁶ Consequently it appeared from the book of Genesis that on 21 March the moon was created as a full moon (Gen. 1. 14–19).⁴⁷ Heimo immediately qualified this, however, by maintaining that the moment of a full moon should be placed somewhere between luna xiv and luna xv, although chronologists usually simply assign it to luna xiv.⁴⁸ As his fourth basic assumption Heimo formulated the cyclical character of a 532-year luni-solar cycle, namely as the product of a nineteen-year lunar cycle and a twenty-eight-year solar cycle.⁴⁹ He denied that this unchangeable and stable cyclicity was disturbed by the standing still of the sun at Gabaon (Joshua 10. 13) or by the backwards moving shadows in the lines of Achaz's sundial (II Kings 20. 11 and Isaiah 38. 8).⁵⁰ This luni-solar functionality may have remained hidden to the uneducated, but it had long been known to Moses and later as well to the Latin Church Fathers.⁵¹ Using the chronological data comprised by the date of Creation (AM 1) and the *annus praesens* (AD 1135) at the time, Heimo wanted finally to search for the precise dates of the Incarnation and Passion of Christ.⁵²

⁴⁶ Munich, MS Clm. 18769, fol. 9^r: 'Item sicut tradidit sagacissima et diligentissima patrum investigatio, et omnium tam Iudeorum quam Christianorum, Grecorum et Latinorum doctorum assertio, sed et physice rationis approbatio, *Prima dies seculi* nascentis fuit xv kal. apr.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66.

⁴⁷ Munich, MS Clm. 18769, fol. 9^r: 'et sicut suggerit Genesis, quarta sequenti die scilicet xii kal. apr., sol et luna et stellae creatae sunt, et luna plena'.

⁴⁸ Munich, MS Clm. 18769, fol. 9^r: 'quanta solet esse inter xiiiiam et xvam quae tamen a compotistis xiiiiam numeretur'.

⁴⁹ Munich, MS Clm. 18769, fol. 9^r: 'Item constat, quoniam ratio cyclorum videlicet lunaris per xix annos, solaris per xxviii, utriusque simul per dxxxii in se veraciter et naturaliter regirat, et non tantum nunc cum ad unguem liniae et inventionis perducta est, sed ex quo temporis natura et cursus cepit, semper eodem modo eademque mensura processit et in se rediit.'

⁵⁰ Munich, MS Clm. 18769, fol. 9^r: 'Haec propterea, quod sol stetit ad Gabaon pugnante Iosue vel umbra rediit per aliqua horarum spatia in horologio Ezechiae, haec ratio turbata est, sed potius sicut ante haec, sic et post haec miracula sua stabilitate decurrit.'

⁵¹ Munich, MS Clm. 18769, fol. 9^r: 'Et licet rudes homines haec eius natura latuerit, Moisen tamen et eius precessores sanctos patres temporum dissertores et supputatores nullatenus latuit, unde et summam temporum eodem modo quo nunc computantur, computaverunt.'

⁵² Munich, MS Clm. 18769, fol. 9^r: 'His igitur sic se habentibus et quasi quodam immobili fundamento assertioni nostre preiacentibus calculatoariae artis ratione duce possumus ut reor, veraciter et lucide sacra et canonica scriptura nobis attestante, procursum totius temporis ab ipso mundi exordio secundum eam quam credimus esse et tenemus hebraicam veritatem, usque ad

Having established these four basic assumptions, in Chapter 2 Heimo studies the differences between Jewish-Hebrew and Greco-Roman chronology. He immediately observes that the prophets and the evangelists had lived according to the Jewish calendar, whereas Heimo and his Christian contemporaries used the Greco-Roman chronology.⁵³ Hebrew chronology was based on a lunar system, whereas the Greco-Roman calendar was based on a solar system.⁵⁴ The Jewish alternation between twenty-nine and thirty days was directly opposite to the Greco-Roman calendar, and moreover in the last cyclical year they reckoned one lunar day fewer than the Christians (383 instead of 384 days).⁵⁵ Finally, they also changed the epact one day sooner (21 March instead of 22 March).⁵⁶ For further discussion of the discrepancies between the two calendar systems Heimo refers to his own *Computus*.⁵⁷

In his third chapter Heimo focuses on three important years. The two extreme points on the spectrum are comprised of the date of the Creation of the world (AM 1) and the *annus praesens* (AD 1135).⁵⁸ Using the chronological parameters of these two years, Heimo next attempts to calculate the date of Christ's Passion.⁵⁹ In the

nativitatem vel passionem Christi Iesu, et abinde usque ad tempora nostra descendendo vel e contra a nostris temporibus ad passionem vel nativitatem Christi, et abinde usque ad ipsum mundi primordium ascendendo considerare, et sic utrisque terminis, scilicet statu nostri temporis et mundi originis, in medio termino videlicet nativitate vel passione Domini sibi concurrentibus et respondentibus lunam dominicae passionis et resurrectionis, planissime cyclorum ratione investigare.'

⁵³ Munich, MS Clm. 18769, fol. 9^v: 'Sciendum est autem, quare aliter se habet computus Hebreorum, quo usi sunt antiqui patriarche et prophetae, sed et evangelistae, et aliter se habet computus Grecorum et Latinorum quo nunc maxime utuntur Christiani.'

⁵⁴ Munich, MS Clm. 18769, fol. 9^r: 'Hebrei quippe seriem temporum per lunares annos estimabant, sed Greci et Latini per solares.'

⁵⁵ Munich, MS Clm. 18769, fol. 9^r: 'et lunationes, aprilis, iunii, augusti et aceterorum mensium quas nos numeramus xxix dierum, illi numerabant xxx, quas nos xxx illi xxix, embolismos omnes xxx dierum sicut et nos preter ultimum, illi xxix dies tamen everant.'

⁵⁶ Munich, MS Clm. 18769, fol. 9^r: 'Eisdem epactis, eisdem quoque concurrentibus usi sunt quibus et nos utimur, sed sedem epactarum quam nos in xi kal. apr. ponimus, ipsi posuerunt in xii kal. apr.'

⁵⁷ Munich, MS Clm. 18769, fol. 9^r: 'De qua diversitate compoti Hebreorum et Christianorum uberius in compoto nostro agitur, ista tamen ad presens dixisse sufficiant.'

⁵⁸ Munich, MS Clm. 18769, fol. 9^r: 'Proponamus ergo nobis quasi tres terminos, duos extremos scilicet epactas et concurrentes primi anni, in quo mundus factus est, et eas quae sunt presentis anni.'

⁵⁹ Munich, MS Clm. 18769, fol. 9^r: 'et unum medium, videlicet epactas et concurrentes illius anni in quo Iesus Christus est passus, et ab utrolibet extremorum terminorum ad medium terminum calculando veniamus, hoc modo'.

year of the Creation of the world the epact was 14 and the concurrent 7 in a leap year.⁶⁰ The year of Christ's Passion had concurrent 5 and epact 11 in the year immediately following a leap year.⁶¹ Finally, in 1135 the epact was 4 and the concurrent 1 in the third year following a leap year.⁶² From these two extreme points on the spectrum, Heimo wished to derive the precise year according to the Latin tradition in which Christ died on 25 March.⁶³

Next, in Chapter 4, Heimo tries to clarify for his reader that the Hebrew Creation era according to Bede and the Incarnation era according to Dionysius Exiguus do not agree with the abovementioned chronological parameters. According to Bede, 3952 years had elapsed between Creation up to and including the Birth of Christ (AM 3952), and according to Dionysius 1134 years had elapsed between Christ's Birth up to and including the then *annus praesens* (AD 1135).⁶⁴ The addition of thirty-three years resulted in the fact that according to Bede 3985 years had elapsed between Creation up to and including Christ's Passion (AM 3985) and that according to Dionysius thereafter 1102 years had elapsed up to and including the then *annus praesens* (AD 1135).⁶⁵

The Bedan Creation era failed, however, to produce the desired result with respect to the year of Christ's Passion.⁶⁶ Heimo divided the 3985 years into 209

⁶⁰ Munich, MS Clm. 18769, fol. 9^v: 'In principio mundi fuerunt xiiii epactae, nulli vel vii cum bissexto concurrentes.'

⁶¹ Munich, MS Clm. 18769, fol. 9^v: 'In anno quo passus est Dominus Iesus Christus, fuerunt v concurrentes proximo anno post bissextum, et xi epactae.'

⁶² Munich, MS Clm. 18769, fol. 9^v: 'In anno Domini cum ista scribimus presenti millesimo cxxxv sunt epactae iiior, concurrens unus tercio anno post bissextum.'

⁶³ Munich, MS Clm. 18769, fol. 9^v: 'Restat itaque ut iuxta premissam regulam a xiiii aepactis et a nullis concurrentibus qui in principio mundi fuerunt, tamdiu descendamus, et econtra ab instantibus presentis anni epactis et concurrentibus eodem usque ascendamus, donec lunam et feriam dominicae passionis et resurrectionis secundum iiior aevangelia, sed et viii kal. apr. in quibus passus est Dominus secundum sanctorum patrum traditionem certam demonstratas ostendamus.'

⁶⁴ Munich, MS Clm. 18769, fol. 9^v: 'Transierunt autem secundum diligentissimam venerabilis Bede presbyteri cronographiam a principio mundi usque ad nativitatem Christi Iesu anni m̄dcccclii, a nativitate vero Christi mille cxxxiiii, et quintus iam instat secundum vulgarissimam supputationem.'

⁶⁵ Munich, MS Clm. 18769, fol. 9^v: 'Ex quibus si xxxiiii annos addamus superioribus, fuerunt secundum Bedam a principio seculi ad passionem Domini anni m̄dcccclxxxv, et abinde ad nos remanent anni mille cii.'

⁶⁶ Munich, MS Clm. 18769, fols 9^v–10^r: 'Sed hos annos sive ab initio mundi descendens, sive a nostris temporibus ad passionem Domini ascendens, si per decemnovenales et solares cyclos divideris, lunam et feriam secundum evangelia nullatenus invenire poteris.'

nineteen-year cycles and fourteen extra years ($209 \times 19 + 14 = 3985$).⁶⁷ Because his previous chapter had already demonstrated that the date of Creation (AM 1) had to have epact 14, Heimo concluded that the last year before Christ's Passion (AM 3985) had epact 7.⁶⁸ This meant in concrete terms that according to the Hebrew calendar in the year AM 3985, 21 March fell on luna vii. Consequently in that same year 25 March logically fell on luna xi and in the year immediately following (AM 3986) on luna xxii.⁶⁹ Heimo concluded from this that neither of these years could be considered the year of Christ's Passion.⁷⁰

Table 47

$x / 19$	AM	epact	
5/19	AM 1	14	° Creation
6/19	AM 2	25	
[...]	[...]	[...]	
18/19	AM 3985	7	25 March = luna xi
19/19	AM 3986	18	25 March = luna xxii

Nor did the calculation in Dionysian years from the then *annus praesens* offer any consolation. Heimo divided the 1102 years into exactly fifty-eight nineteen-year lunar cycles ($58 \times 19 = 1102$).⁷¹ The previous chapter had already shown that 1135 had epact 4, thus linking the year of Christ's Passion (AD 34) to epact 15.⁷² This meant in concrete terms that in the same year 25 March fell on luna xix, which was equally irreconcilable with the year of Christ's Passion according to the

⁶⁷ Munich, MS Clm. 18769, fol. 10^r: 'Verbi gratia. In m̄dcccclxxxv annis continentur ccviii decennovales cycli et remanent xiiii anni.'

⁶⁸ Munich, MS Clm. 18769, fol. 10^r: 'quorum primus habet xiiii epactas, ultimus vii, scilicet lunam xii kal. apr. secundum Hebreos'.

⁶⁹ Munich, MS Clm. 18769, fol. 10^r: 'Ab hac procedenti occurrit luna xia in viii kal. apr. et in proximo sequenti anno xxiiā.'

⁷⁰ Munich, MS Clm. 18769, fol. 10^r: 'quarum neutra congruit dominicae passioni'.

⁷¹ Munich, MS Clm. 18769, fol. 10^r: 'Item in mille ciibus annis a presenti anno inceptis et ascendendo retrograde divisus, inveniuntur decennovales cycli lviii et nichil remanet.'

⁷² Munich, MS Clm. 18769, fol. 10^r: 'Unde constat, quia ultimus annus xv epactas habuit, videlicet lunam xii kal. apr. secundum Iudeos.' Because the *annus praesens* at the time, having epact 4, agrees with the fifteenth year of a nineteen-year lunar cycle (AD 1135 = 15/19), the Dionysian date of Christ's Passion is indeed located in the sixteenth year of a nineteen-year cycle (AD 34 = 16/19), having epact 15.

gospel verity.⁷³ Christ had died, after all, on luna xv according to the Hebrew calendar.⁷⁴

Table 48

<i>x / 19</i>	<i>AD</i>	<i>epact</i>	
16/19	AD 34	15	25 March = luna xix
17/19	AD 35	26	
[...]	[...]	[...]	
14/19	AD 1134	23	
15/19	AD 1135	4	<i>annus praesens</i>

Heimo derived from this the inevitable conclusion that the Bedan Creation era was incorrect.⁷⁵ He immediately added that the corrected Creation era (AM 3962) of his teacher Frutolf of Michelsberg did not provide a solution for this chronological incongruity, either.⁷⁶ According to his Creation era, 3995 years had elapsed between Creation and the date of Christ’s Passion, but this calculation, too, failed to produce the desired epact for 21 March.⁷⁷ Heimo therefore decided to put aside Bede’s Creation era — and implicitly the Dionysian era, as well — and to rely exclusively on the Latin Church Fathers in his quest for the true date of the Passion of Christ.⁷⁸

⁷³ Munich, MS Clm. 18769, fol. 10^r: ‘Ab hac si numerando processeris, invenies lunam in viii kal. apr. fuisse xixum, sed nullomodo dominicae passioni congruam.’

⁷⁴ Munich, MS Clm. 18769, fol. 10^r: ‘Passus quippe fuit Dominus Iesus viii kal. apr. luna xva secundum Iudeos, non xviii.’

⁷⁵ Munich, MS Clm. 18769, fol. 10^r: ‘In hoc scrupulo non tantum venerabilis Beda, sed et plerique ante eum quos ipse sequendo in multis imitatus est, et plurimi post eum qui ipsum imitati sunt, herere deprehenduntur.’

⁷⁶ Munich, MS Clm. 18769, fol. 10^r: ‘Sed nec inde se absolvit magister noster pie memorie Frutolfus, cuius predicabilis diligentia computationi Bede decem annos addidit in cronicis suis, colligens a principio mundi m̄dcccclxiios annos, usque ad nativitatem Christi.’

⁷⁷ Munich, MS Clm. 18769, fol. 10^r: ‘quibus xxxiii additis fiunt m̄dcccxcv ad passionem Christi, sicut quem libuerit probare poterit’. According to this calculation AM 3995 would have epact 28 and AM 3996 epact 9. Consequently in these years 25 March fell on luna ii and luna xiii, respectively, which does indeed not agree with the gospel verity (luna xv).

⁷⁸ Munich, MS Clm. 18769, fol. 10^r: ‘Quia ergo nefas est non credere veritati evangeliorum et auctoritati sanctorum Ieronimi, Augustini, supersedeamus interim computationem Bede in hac parte et eius imitatorum, donec tempemus si forte aliquid quod magis congruat invenire valeamus, auctoritate priorum patrum.’

Having demonstrated the inadequacy of Bede's Creation era and Dionysius's Incarnation era, in Chapter 5 Heimo provides the chronologically acceptable alternatives. He first considers whether or not the Bedan Creation era (AM 3952) exceeded the actual number of years elapsed between Creation and the Birth of Christ.⁷⁹ For this he used as his point of reference the fact that, according to the Latin tradition, Christ had died on 25 March (luna xv) and resurrected on 27 March (luna xvii).⁸⁰ At the same time he repeats the fact that AM 3985 must have had epact 7 and concurrent 3 in a leap year.⁸¹ Ultimately Heimo counted back 491 years in order to find the correct chronological parameters for the year of Christ's Passion (AM 3985 - 491 = AM 3494).⁸²

Because subtracting 491 years from Bede's Creation era went against both the Old Testament and every chronographical calculation, Heimo concluded that in actual fact more years had elapsed than this reckoning proposed.⁸³ The alternative was to look for the desired chronological parameters beyond Bede's date of Christ's Passion. By counting exactly forty-one years further, Heimo found the chronological data that were in complete agreement with the gospel verity (AM 3985 + 41 = AM 4026).⁸⁴ Consequently precisely 4025 years had elapsed from the Creation of

⁷⁹ Munich, MS Clm. 18769, fol. 10^v: 'Primum tamen consideremus, utrum collectio annorum quam secundum Bedam premisimus excedat verum numerum annorum ab initio mundi usque ad passionem Domini necne, hoc modo.'

⁸⁰ Munich, MS Clm. 18769, fol. 10^{r-v}: 'Certum est ut proposuimus quia in passione Christi fuerunt xi epactae secundum Hebreos, et quinque concurrentes post bissextum, neque enim illis aliter luna xva, qua passus est Dominus in viii kal. apr. occurrisset in parasceve, sicut nec xviia in prima sabbatorum vi kal. apr., quando resurrexit.' See also Heimo of Bamberg, *Consideratio annorum*, 1:3.

⁸¹ Munich, MS Clm. 18769, fol. 10^v: 'Fuerunt vero secundum Bedam ut premisimus ab initio mundi seculi ad passionem Domini anni m̄dcccclxxxv quorum primus ut premonstravimus habuit xiiii epactas et nullos concurrentes, ultimus vii epactas tres concurrentes cum bissexto.' See also Heimo of Bamberg, *Consideratio annorum*, 1:4.

⁸² Munich, MS Clm. 18769, fol. 10^v: 'Si autem ab his vii epactis et tribus concurrentibus ultimi anni retrograde numeres, non prius quam in cccclxxxviii [corr. cccxcxi] loco invenies xi epactas et quinque concurrentes post bissextum dominice passioni convenientes.'

⁸³ Munich, MS Clm. 18769, fol. 10^v: 'Ne autem cccclxxxviii [corr. cccxcxi] annos subtrahere presumas, de m̄dcccclxxxv, repugnat tibi omnis series et cronica supputatio veteris testamenti. Unde apparet quia collectio annorum seculi secundum Bedam non pertingit ad passionem Christi.'

⁸⁴ Munich, MS Clm. 18769, fol. 10^v: 'Procedas itaque ab eius ultimo, id est m̄dcccclxxxv anno, vii epactas et tres concurrentes cum bissexto habente, et in xli loco conspicias sedere xi epactas et post bissextum v concurrentes idoneas dominice passioni.'

the world to Christ's Passion, whereby he added forty missing years to Bede's Hebrew Creation era.⁸⁵

For the Dionysian era, Heimo next provides a parallel rationale.⁸⁶ He posits for the time being that 1101 years had elapsed from the year of Christ's Passion up to and including the then *annus praesens* (AD 34 + 1101 = 1135).⁸⁷ The latter year had epact 4 and concurrent 1 in the third year following a leap year. Having counted back 1101 years, Heimo concludes that according to this reckoning the date of Christ's Passion had epact 26 and concurrent 5 in the third year following a leap year (AD 35).⁸⁸ These chronological parameters did not agree, however, with the requisite data for the year of Christ's Passion.⁸⁹

Therefore Heimo decides to count forward in this instance to continue his search, as well.⁹⁰ Having added thirty-four extra years he finds exactly what he is looking for, namely the year of Christ's Passion with epact 11 and concurrent 5 in the first year following a leap year (AD 35 - 34 = AD 1).⁹¹ From the chronological parameters of this year Heimo could indeed conclude that Christ had died on

⁸⁵ Munich, MS Clm. 18769, fol. 10^v: 'Quapropter si annis seculi secundum Bedam addideris xl confidenter et vere ut estimo poteris pronuntiare ab initio seculi usque ad passionem Domini defluxisse annos nec plus nec minus quam *iiiixxv*.' With the intercalation of forty extra years, the date of Christ's Passion shifts indeed from AM 3985 to AM 4026.

⁸⁶ Munich, MS Clm. 18769, fol. 10^v: 'Similiter videamus de annis qui abinde usque ad nos defluerunt.'

⁸⁷ Munich, MS Clm. 18769, fol. 10^v: 'qui secundum supputationem Bede superius comprehensam mci sunt'.

⁸⁸ Munich, MS Clm. 18769, fol. 10^v: 'Quorum ultimus in tempore, sed primus in numero, scilicet nunc instans, nobis certior et notior ceteris, quoniam habet epactas *iiiiior*, concurrentem unum, tertio anno post bissextum, et e contra primus in tempore, sed ultimus in numero, scilicet millesimus ci abhinc retrorsum, quoniam habet *xxvi* epactas concurrentes v tertio anno post bissextum.' Heimo gives here the chronological parameters for the year AD 35, though previously he had invariably attributed the date of Christ's Passion to AD 34.

⁸⁹ Munich, MS Clm. 18769, fol. 10^v: 'dominice passioni non congruentes, patet profecto quia nullo modo ad annum dominicae passionis pertingunt'.

⁹⁰ Munich, MS Clm. 18769, fol. 10^v: 'Unde restat ut tamdiu ascendamus, donec ad id quod volumus pertingamus.'

⁹¹ Munich, MS Clm. 18769, fols 10^v–11^r: 'Quod pro certo fiet, si mc et uni proponamus *xxxiiii* quorum ultimus tempore et numero habet xv epactas et *iiiiior* concurrentes secundo anno post bissextum, porro primus tempore et numero, habet xi epactas et v concurrentes primo anno post bissextum, omnimodo attingentes dominicam passionem.'

25 March (luna xv) and was resurrected on 27 March (luna xvii).⁹² Paradoxically, reckoned thus, the first year of the Dionysian era coincided precisely with the year of Christ's Passion according to Heimo (AD 1 = 34 VA).⁹³ In other words, it was sufficient to convert Dionysius's Incarnation era into a Passion era, as it were.⁹⁴

Table 49

AM	AD	VA	epact (21/3)	concurrent (17/3)	
AM 1			14	7	° Creation
AM 2			25	1	
[...]			[...]	[...]	
AM 3985			7	3	† Christ ~ Bede (AM 3952)
AM 3986			18	4	
[...]			[...]	[...]	
AM 4025	1 BC	33 VA	30	4	
AM 4026	AD 1	34 VA	11	5	† Christ ~ Heimo (AM 3993)
AM 4027	AD 2	35 VA	22	6	
[...]	[...]	[...]	[...]	[...]	
AM 4058	AD 33	66 VA	4	3	
AM 4059	AD 34	67 VA	15	4	† Christ ~ Dionysius
AM 4060	AD 35	68 VA	26	5	
[...]	[...]	[...]	[...]	[...]	
AM 5159	AD 1134	1167 VA	23	7	
AM 5160	AD 1135	1168 VA	4	1	<i>annus praesens</i>

In a succinct Chapter 6, Heimo draws up the balance sheet of his corrections for the pre-Christian and the Christian periods. According to his calculations missing years had to be added to both periods. Heimo maintained that in Bede's Creation era forty years were missing (AM 4026 instead of AM 3985) and that in Dionysius's Incarnation era thirty-three years had likewise disappeared (AD 1 = 34 VA).⁹⁵ A

⁹² Munich, MS Clm. 18769, fol. 11': 'Habet quippe viii kal. apr. secundum Iudeos, lunam xva et feriam viam qua Dominus passus est, vi kal. apr. lunam xviam et primam sabbati quam nos dicimus diem dominicam qua resurrexit.'

⁹³ Munich, MS Clm. 18769, fol. 11': 'Constat ergo quia a passione Domini usque nunc defluerunt anni mcxxxiiiior et quintus iam instat nunc cum ego Heimo presbyter minimus fratrum in ecclesia sancti Iacobi apostoli Babinbergensis territorii hec scribo.'

⁹⁴ Munich, MS Clm. 18769, fol. 11': 'Unde patet quia falluntur qui annos ab incarnatione Domini ab eius nativitate vel conceptione, quando incarnatio cepit, numerare inchoant, et non potius a passione vel resurrectione, quando incarnatio eius consummata est.'

⁹⁵ Munich, MS Clm. 18769, fol. 11': 'His certe sic se habentibus si annos xl de supputatione annorum ab initio seculi subtractos xxxiiiibus annis de numero annorum Domini subductis coniunxerimus.'

simple sum thus revealed to Heimo that a total of seventy-three years were missing.⁹⁶ He considered it his new task to account for the gap of these missing years chronographically.⁹⁷

In the next four chapters (7–10) Heimo makes the shift to chronography. He calculates the number of years in the first four *aetates*. For the first *aetas*, namely from Creation to the Great Flood, he arrives at a total of 1656 years, which agrees perfectly with the Hebrew Creation era.⁹⁸ On Friday, 30 April AM 1656, the Great Flood erupts, and it is supposed to have lasted exactly 365 days.⁹⁹ According to Heimo the second *aetas* lasted no fewer than 367 years, namely until God's promise to the seventy-five-year-old Abraham that from his seed a Saviour would emerge through whom all the peoples of the earth would be blessed (Gen. 26. 4).¹⁰⁰ Contrary to among others Bede, Heimo did not end the second *aetas* with the incarnation of Abraham.¹⁰¹ This also explains why he set the length of the third *aetas* at only 866 years, namely from God's promise to Abraham up to the first regnal year of King David.¹⁰² Finally, according to Heimo the fourth *aetas* lasted 473

⁹⁶ Munich, MS Clm. 18769, fol. 11^r: 'profecto lxxiii annos de serie temporum per falsam ut reor cronographiam interceptos esse videbimus'.

⁹⁷ Munich, MS Clm. 18769, fol. 11^r: 'Porro ubi intercepti sint, comitante Domino, qui est via et veritas, inquiramus hoc modo.' See also John 14. 6.

⁹⁸ Munich, MS Clm. 18769, fol. 11^r: 'Ab initio seculi usque ad diluvium computantur secundum Genesim per etates patrum anni mille dclvi.'

⁹⁹ Munich, MS Clm. 18769, fol. 11^v: 'Noe anno dc venit diluvium, mense secundo qui hebraice dicitur Jar xviii die mensis quam nos dicimus kal. mai. feria vi sicut per lunares et solares ciclos ab initio seculi eatenus evolutos probari potest, et perdidit omnes praeter eos qui cum Noe in arca salvati sunt. Duravit autem diluvium illud anno integro, id est ccclxv diebus. Incepit enim ut dictum est xvii die mensis secundi, que est ii kal. mai. in feria viia, finitaque est prima etas seculi, exactis a Creatione solis et lunae annis solaribus idclvi et diebus xli vel lunaribus annis idclvi et diebus lvii. Vixit autem Noe post diluvium annis cccl.' Heimo took this information from Bede Venerabilis, *De temporum ratione liber*, ch. 66 (AM 1656). The year AM 1656 had epact 6 and concurrent 3. Because 24 March was thus a Tuesday, 1 May indeed logically fell on a Friday.

¹⁰⁰ Munich, MS Clm. 18769, fol. 12^{r-v}: 'Sequitur statum transacto diluvio secunda *aetas* seculi, et clauditur annis ccclxvii [...]. Completi sunt ergo ccclxvii anni secunde aetatis lxxv anno Abrahæ, et lxxvius est primus annus promissionis, et initium tertia aetatis mundi.'

¹⁰¹ Bede Venerabilis, *De temporum ratione liber*, ch. 66 (AM 1948).

¹⁰² Munich, MS Clm. 18769, fol. 12^v and fol. 15^r: 'A primo anni promissionis usque ad egressum filiorum Israel de Egipto numerantur anni ccccxxx secundum editionem lxx interpretum [...]. Et ab egressu de Egipto usque ad primum annum regni David regis Israel fuerunt anni ccccxxxvi. Qui iuncti superioribus fiunt dcccclxvi anni tercie seculi aetatis [...]. Coniuncti quippe lviii ad ccccxxi annos explent ccclxxviii ab egressione de Egipto usque ad quartum Salemonis annum. Ex

years, namely from the first regnal year of David up to the destruction of Jerusalem.¹⁰³

In the important Chapter 11, Heimo examines the fifth *aetas*. This period began with the forced exile into Babylonia and according to Heimo extended not to the year of Christ's Birth, but rather to the year of His Passion and Resurrection.¹⁰⁴ He notes that there has been some confusion concerning the precise number of years in this fifth *aetas*.¹⁰⁵ This constituted a significant difference with respect to the previous four *aetates*, which are described in the Pentateuch.¹⁰⁶ For witnesses to this fifth *aetas*, Heimo could rely not just on the historical biblical books of Ezra, Nehemiah, and the two books of Maccabees, but also on the Prophets and the hagiographical and historiographical sources.¹⁰⁷

Heimo detects, however, some contradictions among the various historiographical sources. In this context he first scrutinizes the chronicle of Eusebius of Caesarea, one of the most authoritative sources. There Eusebius had maintained that the destroyed temple of Salomon had remained an abandoned ruin for thirty-two years.¹⁰⁸

quibus si xliii subtrahas, remanent ccccxvvi. Qui si iungantur ccccxix annis qui numerati sunt a primo anno promissionis usque ad exitum de Egipto colliguntur dcccclxvi anni terciae aetatis seculi ab Abrahae lxxv anno usque ad primum annum regni David, qui est aetatis eius xxxus.'

¹⁰³ Munich, MS Clm. 18769, fol. 15^v and fol. 17^v: 'Deinde a primo anno regni David quarta seculi *aetas* incipitur, et in destructione Ierosalem et templi Domini finitur cccclxxiii annis [. . .]. Sicque *aetas* seculi quarta finita est a primo anno David usque ad eversionem Ierosalem et templi incensionem cccclxiii annis ut praedictum est.'

¹⁰⁴ Munich, MS Clm. 18769, fol. 17^v: 'Quinta etas seculi incipit a transmigratione Iude in Babilonem, et finitur non ut quidam volunt in Christi nativitate, sed potius in eius passione et resurrectione. Et enim usque illud tempus legis, ire et mortis extendebatur et ibi finem accepit, unde et ibidem quintae aetatis spatium congruem terminari credatur.'

¹⁰⁵ Munich, MS Clm. 18769, fol. 17^v: 'Quot vero annis claudatur, ambigitur.'

¹⁰⁶ Munich, MS Clm. 18769, fol. 17^v: 'Non enim sicut tempora precedentium quatuor etatum continuatim ex canone veteris testamenti cui contradicere illicitum est collecta sunt.' The first five books of the Old Testament (Genesis, Exodus, Leviticus, Numeri, and Deuteronomium) together constitute the Pentateuch.

¹⁰⁷ Munich, MS Clm. 18769, fol. 17^v: 'sic quoque anni huius quintae aetatis colligi possunt, quoniam nulli canonici codices eius gesta vel annos continentes praeter librum Esdre et Neemie et duo libri Machabeorum nobis supersunt, sed partim a scripturis prophetarum, partim a predictis libris, partim ex agiographis, partim quoque ex istoriis gentilium colliguntur, et a diversis diverso modo'.

¹⁰⁸ Munich, MS Clm. 18769, fol. 17^v: 'Eusebius namque quem plures moderni cronographi imitantur, dicit templum Salemonis post incensionem eius xxxii annis permansisse penitus desertum.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3423).

Ultimately reconstructive work on this temple was begun in the second regnal year of the Persian king Cyrus the Older (d. 530 BC), which would take another forty-six years.¹⁰⁹ This reconstruction was completed in the seventh regnal year of Darius (d. 486 BC), and Eusebius then reckoned 483 years to the tenth regnal year of Emperor Augustus (d. AD 14).¹¹⁰ Heimo adds another thirty-two years to this, because Christ was born in the forty-second regnal year of this Roman emperor.¹¹¹ Finally, he adds yet another thirty-three years, namely the period spent by Jesus on earth.¹¹² Heimo concludes from this that according to Eusebius a total of 625 years had elapsed from the destruction of Jerusalem to the year of Christ's Passion.¹¹³

The second historiographer to warrant scrutiny is Julius Africanus. According to his *Chronografia* seventy years had elapsed before Cyrus put an end to the Babylonian exile, and it would be another 115 years before Nehemiah would receive permission to begin reconstruction of the temple.¹¹⁴ The latter took place in the twentieth regnal year of Artaxerxes, and Julius Africanus subsequently reckoned 475 years until the sixteenth regnal year of Emperor Tiberius (d. AD 37), during

¹⁰⁹ Munich, MS Clm. 18769, fol. 17^v: 'usque ad secundum annum Ciri Perse, et tunc iacta fuisse fundamenta templi, illud quoque xlii annus consummatum esse'. See also Eusebius and Jerome, *Chronicon*, Olymp. 55/1, and John 2. 20.

¹¹⁰ Munich, MS Clm. 18769, fols 17^v–18^r: 'Deinde a consummatione templi que facta est in vii anno Darii Hidaspis filii, numerat cccclxxxiii annos usque ad decimum annum Octaviani Augusti caesaris hoc modo. Sexagesimae sexte olimpiadis anno primo, hoc est anno Darii vii, completa est templi edificatio, et clxxxvi olimpiadis anno tercio, id est Augusti decimo, Herodes suscepit regnum Iudeorum, in quibus sunt anni cccclxxxiii per singulas olimpiades quadriennio supputato.' See also Eusebius and Jerome, *Chronicon*, Olymp. 66/1 and Olymp. 186/3.

¹¹¹ Munich, MS Clm. 18769, fol. 18^r: 'His iungantur xxxii anni, quoniam xlii anno Augusti cesaris natus est Christus Ihesus.'

¹¹² Munich, MS Clm. 18769, fol. 18^r: 'et xxxiii anni quibus Christus usque ad passionem suam inter homines conversatus est'.

¹¹³ Munich, MS Clm. 18769, fol. 18^r: 'Collectis ergo simul xxxii et xlii et cccclxxxiii et xxxii et xxxiii annis secundum Eusebium, fiunt a destructione Ierosalem et incensione templi anni dcxxv usque ad passionem Christi.' Because the calculation must be exclusive (*up to* and not *up to and including*), one year is indeed subtracted: $32 + 46 + 483 + 32 + 33 - 1 = 625$.

¹¹⁴ Munich, MS Clm. 18769, fol. 18^r: 'Affricanus vero lxx annos tribuit Hebreorum captivitati et templi incensionis, deinde a primo anno Ciri Perse qui relaxavit captivitatem usque ad vicesimum annum Artaxersis Macrochiri idem longimani, qui dedit licentiam Neemie redificare muros Ierosalem, numerat cxv annos.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 9 and ch. 66 (AM 3529).

which period he also made note of Christ's Passion.¹¹⁵ Heimo concludes from this that according to Julius Africanus a total of 660 years had elapsed from the destruction of Jerusalem up to the year of Christ's Passion.¹¹⁶

Finally, Heimo studies a third chronicler, namely Flavius Josephus (d. c. 101). As Julius Africanus had done, this Jewish historiographer noted in his *Antiquitates Iudaicae* that seventy years had elapsed between the destruction of Jerusalem and the moment when the Persian king Cyrus came to power.¹¹⁷ Subsequently he counted 639 years and 45 days to the second destruction of the temple, namely by the Roman emperors Vespasian (d. AD 79) and Titus (d. AD 81).¹¹⁸ Because the latter event took place in the forty-second year after Christ's Passion, according to Flavius Josephus the fifth *aetas* had lasted a total of 668 years.¹¹⁹

Ultimately Heimo turned up three different numbers for the exact duration of the fifth *aetas*: Eusebius reckoned 625 years, Julius Africanus 660 years, and Flavius Josephus 668 years. He therefore decided to subject the matter to a closer scrutiny in his twelfth chapter, using as his point of reference the chronological data of the year of Christ's Passion.¹²⁰ Earlier in his tract Heimo had already calculated that

¹¹⁵ Munich, MS Clm. 18769, fol. 18^r: 'Deinde incipiens a xxi anno Artaxersis, qui est lxxxme tercie olimpiadis quartus annus, numerat cccclxx annos usque ad xvi annum Tiberii augusti, qui est cciie olimpiadis secundus annus.' There are indeed 475 years between 83/3 and 202/2.

¹¹⁶ Munich, MS Clm. 18769, fol. 18^r: 'Iungantur ergo simul lxx et cxv et cccclxxv, et habebimus sexcentos lx annos, a captivitate Iudeorum usque ad passionem Domini, secundum Affricanum.' The calculation is as follows: 70 + 115 + 475 = 660.

¹¹⁷ Munich, MS Clm. 18769, fol. 18^r: 'Denique Iosephus, Iudeus scriptor antiquitatum, dicit Hebreorum captivitatem durasse per lxx annos usque ad primum annum Ciri Perse.' See also Flavius Josephus, *Antiquitates Iudaicae*, 20:10, and Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3389).

¹¹⁸ Munich, MS Clm. 18769, fol. 18^r: 'et a secundo anno Ciri quando iacta sunt fundamenta templi usque ad destructionem eius novissimam, quae per Titum et Vespasianum Romanos facta est, numerat annos dcxxxviii et dies xlv'.

¹¹⁹ Munich, MS Clm. 18769, fol. 18^r: 'Iungantur simul lxxi et dcxxxviii et fiunt dccx anni ab incensione templi prima sub Nabuchodonosore, usque ad omnimoda eius eversionem sub Tito et Vespasiano. Quae eversio quoniam xlii anno post passionem Domini facta est, tollantur xlii anni de dccx, et remanebunt anni quinte etatis dclxviii secundum Iosephum.' See also Eusebius and Jerome, *Chronicon*, Olymp. 212/3. The calculation is as follows: 71 + 639 - 42 = 668.

¹²⁰ Munich, MS Clm. 18769, fol. 18^r: 'Cum ergo tres isti antiquorum temporum signatores quos plerique nostri cronographori secuntur, de annis quintae aetatis quos querimus sic inter se dissideant, diligenter investigemus quid ex his potius teneri debeat, et nostre intentioni scilicet lune et feria passionis et resurrectionis dominice magis conveniat.'

the first four *aetates* had lasted for a total of 3363 years, which was in complete agreement with the Hebrew.¹²¹

Using the duration of the fifth *aetas* according to Eusebius, Heimo arrives at 3988 years from Creation to the Passion of Christ ($3363 + 625 = 3988$).¹²² He subdivides these years into 209 nineteen-year lunar cycles and seventeen extra years ($209 \times 19 + 17 = 3988$).¹²³ Because the date of Creation had as the first year of a nineteen-year lunar cycle epact 14, AM 3988, as the seventeenth year of such a nineteen-year cycle, had to have epact 11.¹²⁴ At the same time Heimo calculated that 3988 years comprised 142 twenty-eight-year solar cycles and twelve extra years ($142 \times 28 + 12 = 3988$).¹²⁵ Because the date of Creation, as the first year of a twenty-eight-year solar cycle, had concurrent 7 in a leap year, AM 3988, as the twelfth year of such a twenty-eight-year cycle, had to have concurrent 6 in the third year after a leap year.¹²⁶ According to these chronological parameters, in that same year 25 March fell on a Saturday (luna xv).¹²⁷ This result had the advantage that Christ's Passion indeed fell on luna xv.¹²⁸ On the other hand, the insurmountable problem remained that 25 March fell on a Saturday, and not on a Friday (Good Friday).¹²⁹

¹²¹ Munich, MS Clm. 18769, fol. 18^v: 'Sicut superius collegimus ex canone veteris testamenti ab origine mundi usque ad transmigrationem Iude in Babilonem transierunt anni mcccclxiii .' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3363).

¹²² Munich, MS Clm. 18769, fol. 18^v: 'Quibus si coniunguntur anni dcxxv qui iuxta Eusebium postea successerunt usque ad passionem Domini, fiunt simul tria milia dcccclxxxviii .'

¹²³ Munich, MS Clm. 18769, fol. 18^v: 'et continent ciclos lunares ccviii et insuper xvii annos. Etenim decies novies ccviii faciunt mcccclxxi et supersunt xvii anni'.

¹²⁴ Munich, MS Clm. 18769, fol. 18^v: 'quorum primus habet epactas xiii , scilicet easdem quae fuerunt in principio mundi, septimus decimus habet xi epactas'.

¹²⁵ Munich, MS Clm. 18769, fol. 18^v: 'Continent etiam cxlii ciclos solares et insuper xii annos, quia vigies octies cxlii faciunt mcccclxxvi et supersunt xii anni.'

¹²⁶ Munich, MS Clm. 18769, fol. 18^v: 'quorum primus nullos habet concurrentes, sicut primus annus seculi, duodecimus habet vi concurrentes quarto [*corr.* tertio] anno post bissextum'.

¹²⁷ Munich, MS Clm. 18769, fol. 18^v: 'Unde colligitur iuxta Eusebium in anno ab incensione templi et Ierosalem dcxxv in xii kal. apr. lunam fuisse xiam secundum Iudeos in quarta [*corr.* tertia] feria, et in viii kal. apr. ubi Christi passio assignatur fuisse xva in prima feria.' The concurrent 6 does indeed clearly indicate that 24 March of that year was a Friday.

¹²⁸ Munich, MS Clm. 18769, fol. 18^v: 'Quoniam ergo xva luna viii kal. apr. dominicae passioni secundum evangelistas concordat, possemus forsitan computatione Eusebii acquiescere.'

¹²⁹ Munich, MS Clm. 18769, fol. 18^v: 'nisi huic repugnare videremus feriam eiusdem diei scilicet viii kal. apr. luna existente xva in paraseve Iudeorum, id est in via feria non in prima [*corr.* septima] feria'.

Table 50

<i>x/19</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
epact	14	25	6	17	28	9	20	1	12	23	4	15	26	7	18	29	11	22	3

Table 51

<i>x/28</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
concurrent	7B	1	2	3	5B	6	7	1	3B	4	5	6	1B	2

<i>x/28</i>	15	16	17	18	19	20	21	22	23	24	25	26	27	28
concurrent	3	4	6B	7	1	2	4B	5	6	7	2B	3	4	5

In the case of Julius Africanus, Heimo arrives at 4023 years from Creation to the Passion of Christ (3363 + 660 = 4023).¹³⁰ These years comprised 211 nineteen-year lunar cycles and fourteen extra years (211 x 19 + 14 = 4023).¹³¹ From the date of Creation Heimo calculated that the fourteenth year of a nineteen-year lunar cycle had epact 7.¹³² Subsequently he also counted 4023 years as 143 twenty-eight-year solar cycles and nineteen extra years (143 x 28 + 19 = 4023).¹³³ The nineteenth year of such a twenty-eight-year cycle had concurrent 1.¹³⁴ From these chronological parameters it became clear that 25 March fell on a Monday (luna xi) in that year, which did not agree with the gospel data on the date of Christ's Passion.¹³⁵

Finally, Heimo applied a similar calculation to the data according to Flavius Josephus. He counted a total of 4033 years from Creation to the Passion of Christ.¹³⁶ This period consisted of 212 nineteen-year lunar cycles and five extra years (212

¹³⁰ Munich, MS Clm. 18769, fol. 18^v: 'Item annis ab origine mundi *iiii*ccclx tribus iungantur anni dclx quos secundum Affricanum collegimus ab incensione templi et Ierosalem usque ad passionem Domini, fiuntque simul *iiii*xxxi.

¹³¹ Munich, MS Clm. 18769, fol. 18^v: 'ac claudunt ciclos lunares cxi et insuper *xiiii* annos'.

¹³² Munich, MS Clm. 18769, fols 18^v–19^r: 'quorum primus habet epactas *xiiii* scilicet easdem quas habuit primus annus mundi, ultimus habet vii'.

¹³³ Munich, MS Clm. 18769, fol. 19^r: 'Habent quoque solares ciclos cxliii et insuper annos *xviii*.

¹³⁴ Munich, MS Clm. 18769, fol. 19^r: 'quorum primus nullum habet concurrente, ultimus habet unum'.

¹³⁵ Munich, MS Clm. 18769, fol. 19^r: 'Inde colliguntur quia in anno dclx ab incensione templi in viii kal. apr. luna fuit xia in feria secunda, nec congruit ullatenus dominice passioni.' The concurrent 1 does indeed clearly indicate that 24 March of that year fell on a Sunday.

¹³⁶ Munich, MS Clm. 18769, fol. 19^r: 'Denique annis ab origine mundi *iiii*ccclxiii iungantur anni dclxviii qui ab incensionem templi usque ad passionem Christi secundum Iosephum collecti sunt, et fiunt *iiii*xxxii [*corr.* *iiii*xxxiii].' Heimo makes an error in calculation here. The chronological parameters show that he counted 4033 years instead of 4031 (3363 + 668 = 4031).

$\times 19 + 5 = 4033$).¹³⁷ The fifth year of such a nineteen-year cycle had epact 28.¹³⁸ Heimo calculated that 4033 years likewise comprised 144 twenty-eight-year solar cycles and one extra year ($144 \times 28 + 1 = 4033$).¹³⁹ This resulted in AM 4033 having to have concurrent 7.¹⁴⁰ The combination of these chronological parameters revealed that 25 March of that same year fell on a Sunday (luna iii), which could not in any way be reconciled with the gospel data concerning the date of Christ's Passion.¹⁴¹ The inevitable conclusion of this twelfth chapter is, then, that these three chronographers were in disagreement with the gospel verity and/or the Latin tradition.¹⁴²

Heimo attempts therefore with God's help to devise an acceptable chronological alternative in Chapter 13.¹⁴³ He posits at the outset that Christ had died on Friday 25 March, and more precisely on luna xv according to the Jewish reckoning, and on luna xiv according to the Greco-Latin reckoning.¹⁴⁴ This particular combination for 25 March could only occur in a year with epact 11 and concurrent 5.¹⁴⁵ He therefore decided to add two extra years to the fifth *aetas* according to Julius Africanus ($660 + 2 = 662$).¹⁴⁶ The year AM 4025 had chronological parameters of

¹³⁷ Munich, MS Clm. 18769, fol. 19^r: 'clauditque ciclos lunares ccxii et insuper quinque annos'.

¹³⁸ Munich, MS Clm. 18769, fol. 19^r: 'quorum primus habet xiiii epactas, eadem que in principio mundi fuerunt, quintus habet xxviii'.

¹³⁹ Munich, MS Clm. 18769, fol. 19^r: 'Claudit quoque ciclos solares cxliiii et insuper unum annum.'

¹⁴⁰ Munich, MS Clm. 18769, fol. 19^r: 'qui nullas habet concurrentes, sicut primus seculi nascentis annus'.

¹⁴¹ Munich, MS Clm. 18769, fol. 19^r: 'Inde colligitur quia in dclxviii° ab incensione templi anno iuxta Iosephum, occurrit luna xxviii in xii kal. apr. secundum Hebreos, in iiii feria et in viii kal. apr. luna tertia in feria prima, quod nullatenus primae diei azimorum secundum legem Moysi vel dominicae passioni secundum fidem evangelicam congruit.' Because the concurrent 7 and the epact 28 indicate that 24 March was a Saturday and 21 March fell on luna xxviii, Heimo calculated that 25 March in that same year fell on a Sunday (luna iii).

¹⁴² Munich, MS Clm. 18769, fol. 19^r: 'His ita consideratis, patet profecto quia nulli de his tribus cronographis omnimodo nos consentire permittunt et veritas evangelica, et traditio ecclesiastica.'

¹⁴³ Munich, MS Clm. 18769, fol. 19^r: 'Quod ergo faciemus? Quomodo id quod querimus inueniemus? Sed adiutorium nostrum a Domino qui fecit celum et terram.'

¹⁴⁴ Munich, MS Clm. 18769, fol. 19^r: 'Credimus Dominum nostrum Ihesum Christum crucem ascendisse viii kal. apr. luna xva secundum Hebreos, sed xiiiia secundum Latinos et Grecos existente, in feria via.'

¹⁴⁵ Munich, MS Clm. 18769, fol. 19^r: 'Hac autem lunam et feriam non habebimus, nisi xi epactis et v concurrentibus.'

¹⁴⁶ Munich, MS Clm. 18769, fol. 19^r: 'Addamus itaque duos annos dclx annis quos Affricanus ab incensionem templi usque ad passionem Christi numerat, et habebimus dclxii annos.'

epact 29 and concurrent 4 ($3363 + 662 = 4025$).¹⁴⁷ The following year logically had epact 11 and concurrent 5.¹⁴⁸ Consequently in AM 4026 25 March fell on a Friday, more precisely on luna xv according to the Jews, and on luna xiv according to the Greco-Latin chronology.¹⁴⁹ In this year Heimo had finally found a chronologically acceptable year of Christ's Passion (AM 4026 = 34 VA).¹⁵⁰ The duration of the fifth *aetas* according to Flavius Josephus must therefore be reduced by six years ($668 - 6 = 662$).¹⁵¹ Thirty-seven missing years had to be added to Eusebius's reckoning ($625 + 37 = 662$).¹⁵²

Table 52

	<i>Aetates I–IV</i>	<i>Aetas V</i>	<i>Aetates I–V</i>	
Eusebius of Caesarea	3363	625	3988	25/3 = Saturday (luna xv)
Julius Africanus	3363	660	4023	25/3 = Monday (luna xi)
Flavius Josephus	3363	668	4033(!)	25/3 = Sunday (luna iii)
Heimo of Bamberg	3363	662	4025	25/3 = Friday (luna xiv)

In Chapters 14 and 15 Heimo attempts to fill in these 662 years of the fifth *aetas* chronographically with the reigns of the Babylonians, Persians, Alexandrians, and Romans.¹⁵³ The most important change for Heimo consisted in dating the story of Judith and Holofernes to the reign of the first Persian ruler Cyrus the Older (553–529 BC) and not in the relatively short reign of his son Cambyses (529–522 BC).¹⁵⁴

¹⁴⁷ Munich, MS Clm. 18769, fol. 19^r: 'quorum ultimus secundum predictam ciclorum rationem habet xxviii epactas secundum Iudeos et iiiior concurrentes'.

¹⁴⁸ Munich, MS Clm. 18769, fol. 19^r: 'Proximus qui sequitur habet xi epactas et v concurrentes.'

¹⁴⁹ Munich, MS Clm. 18769, fol. 19^{r-v}: 'Unde fit ut etiam in xii kal. apr. lunam habet xia in secunda feria, et in viii kal. apr. luna xva secundum Iudeos et xiiiia secundum Latinos et Grecos in via feria.'

¹⁵⁰ Munich, MS Clm. 18769, fol. 19^r: 'quorum omnimodo nostre intentioni scilicet dominicae passioni congruit'.

¹⁵¹ Munich, MS Clm. 18769, fol. 19^r: 'Econtra annis Iosephi dclxviiiito ab incensione templi demamus sex, et remanent dclxii quorum ultimus nichilominus per xi epactas et v concurrentens suos dominicae passioni in viiii kal. congruit.'

¹⁵² Munich, MS Clm. 18769, fol. 19^r: 'Annis vero dcxxv quos ex Eusebio collegimus, nisi addidermus xxxvii, annum dominice passionis non attingemus.'

¹⁵³ Munich, MS Clm. 18769, fol. 21^r: 'Possumus quoque dclxiios predictos annos quinte etatis per tempora regum Babiloniorum, Persarum, Alexandrinorum et Romanorum colligere hoc modo.'

¹⁵⁴ Munich, MS Clm. 18769, fols 21^v–22^r: 'Haec secundum estimationem quorundam ideo hic inseruimus, quoniam a pluribus sub Cambise filio Ciri Perse contigisse dicuntur, quae de Iudith

Following a relatively exhaustive enumeration, Heimo arrived at the long reign of Emperor Augustus. In the forty-second regnal year of this Emperor Heimo marked the actual beginning of the first fifteen-year indiction cycle and the annunciation of Mary on Saturday 25 March (luna x).¹⁵⁵ During that same year Jesus was born, on Monday 25 December in the third year of the 194th Olympiad (194/3).¹⁵⁶ Next Heimo dates the beginning of Jesus's public life on 6 January in the fifteenth regnal year of Tiberius.¹⁵⁷ Finally, Christ's Passion was linked to the eighteenth regnal year of the same Tiberius, more precisely with 25 March, as Augustine of Hippo and Jerome of Strido had already declared.¹⁵⁸ By way of concluding this chapter he once again clearly states that the fifth *aetas* lasted a total of 662 years.¹⁵⁹

In the sixteenth and final chapter of this first book, Heimo gives a final survey of the first five *aetates*. He posits first that, with the help of chronological principles and trustworthy historiographical sources, he had calculated that a total of 4025 years had elapsed since Creation and the Passion of Christ.¹⁶⁰ He thereby counted

scripta sunt, sed repugnat illis omnino rerum et temporum ratio. Etenim Cirus regnum Babiloniorum, et Assiriorum, et Medorum, Lidorum quoque in unum regnum Persarum continuavit, et filio suo Cambisi reliquit, ipseque Cambises octo tantum annis regnavit.' Heimo here goes against Eusebius and Jerome, *Chronicon*, Olymp. 62/2, and Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3431).

¹⁵⁵ Munich, MS Clm. 18769, fol. 24^v: 'Item eiusdem Augusti xlii^o anno indictiones originem superserunt, quando secundum Lucam evangelistam, exiit edictum ab Augusto caesare, ut describeretur universus orbis. Eodem quoque anno annuntiatus est et conceptus Dominus Ihesus Christus a beata et perpetua virgine Maria in Nazareth viii kal. apr. luna existente xa secundum Iudeos, in feria septima exactis prime indictionis mensibus vi.'

¹⁵⁶ Munich, MS Clm. 18769, fol. 24^v: 'et natus est viii kal. ian. in Bethlehem feria iia finitis secunde indictionis mensibus viii ac diebus duobus olimpiadis cxciii^e anno tercio'.

¹⁵⁷ Munich, MS Clm. 18769, fol. 24^v: 'Augusto cesare mortuo, successit ei privignus suus, Liviae filius Tiberius, et regnavit annis xxiii. In cuius imperii xv anno Christus Ihesus baptizatus est ab Iohanne baptista viii idus ian., sicut celebrat sancta ecclesia.'

¹⁵⁸ Munich, MS Clm. 18769, fol. 24^v: 'In xviii anno eiusdem Tiberii passus est viii kal. apr., sicut consonant sanctus Augustinus et sanctius Ieronimus, totaque celebrat ac credit ecclesia.' See also Augustine of Hippo, *De civitate Dei*, 18:54; Augustine of Hippo, *De trinitate*, 4:5; Augustine of Hippo, *Quaestiones in Heptateuchum*, 2:90; and pseudo-Jerome of Strido, *Martyrologium Hieronymianum*, 25 March.

¹⁵⁹ Munich, MS Clm. 18769, fol. 24^v: 'finitaque est quinta seculi *aetas* a transmigratione Iudae in Babilonem et incensione templi dclxii annis in passione Domini'.

¹⁶⁰ Munich, MS Clm. 18769, fols 24^v–25^r: 'His igitur constantibus tum per naturales ciclorum rationes, tum per autenticas et probabiles historiarum suputationes, coniungamus simul quinque aetatum seculi annos, et fiunt mxxv a luna xiiii, sicut est primitus creata in xii kal. apr. in quarta

precisely forty-one years further than Bede's Creation era in order to arrive at the year of Christ's Passion (AM 3985 + 41 = AM 4026).¹⁶¹ According to Heimo Bede had erred because he followed Eusebius and had counted only thirty instead of seventy years from the beginning of the Babylonian exile to the first regnal year of Cyrus without comparing this to the Prophets (Jer. 25. 11–12).¹⁶² Heimo therefore concludes that precisely in this period the forty missing years had to be made up in Eusebius, Bede, and their successors.¹⁶³

At the end of this first book, Heimo begins in earnest to exonerate Eusebius of every possible blame.¹⁶⁴ First, he proffers that Eusebius could not have foreseen everything, for like the Greek poet Homer (d. c. 800 BC) he too was sometimes given to taking a nap now and again.¹⁶⁵ Moreover, in Eusebius's day the possibilities of a 532-year luni-solar cycle were entirely unknown.¹⁶⁶ Finally, in his day Eusebius had had to base himself on unreliable chronicles.¹⁶⁷ Nor might any blame accrue to Bede.¹⁶⁸ Bede had after all frequently and rightfully diverged from Eusebius's chronicle, and according to Heimo had presumably been inclined as well to correct

feria, usque ad xiiiiam, lunam qua finita et incipiente xva, salus omnium in Christi passione est inchoata viii kal. apr. in parasceve iudeorum quae est nostra id est Christianorum sexta feria.'

¹⁶¹ Munich, MS Clm. 18769, fol. 25^r: 'Quod autem domnus Beda ab origine mundi usque ad passionem Domini tantum m̃dcccclxxxiii annos computat, xli de predictis a BCidens.'

¹⁶² Munich, MS Clm. 18769, fol. 25^r: 'ideo utique facit quia secutus est cronicam Eusebii, qui ut premonstravimus Iudeorum septuagenem captivitatem, in xxx anno relaxari putavit, non caute ut videtur prophetarum verba trutinans'. See also Eusebius and Jerome, *Chronicon*, Olymp. 55/1, and Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3423).

¹⁶³ Munich, MS Clm. 18769, fol. 25^r: 'Liceat ergo nobis credere et sentire, donec fortasse videamus diligentiores inquisitiones veriori et probabiliori rationem nobis contraire, illos xl annis quos in principio huius tractatus nobis deesse deprehendimus in captivitate Iudeorum babilonica ab Eusebio et Beda eorumque imitatoribus modernis cronographis interceptos esse.'

¹⁶⁴ Munich, MS Clm. 18769, fol. 25^r: 'Danda tamen est Eusebio venia.'

¹⁶⁵ Munich, MS Clm. 18769, fol. 25^r: 'tum quia non potuit omnia eque providere, sicut et poeata dicit quandoque dormitat bonus Homerus'. See also Quintus Flaccus Horace, *Ars poetica*, ed. by Henry R. Fairclough, Loeb Classical Library, 194 (Cambridge, MA, 1991), v. 358.

¹⁶⁶ Munich, MS Clm. 18769, fol. 25^r: 'tum quia non dum ut nunc patuerunt usque quaque naturae solarium et lunarium pascaliumque ciclorum'.

¹⁶⁷ Munich, MS Clm. 18769, fol. 25^r: 'tum quia maxime historicas relationes que non semper secundum veritatem sed multoticiens secundum opinionem contextuntur secutus est'.

¹⁶⁸ Munich, MS Clm. 18769, fol. 25^r: 'Sed et venerabilis Bede nichilominus indulgendum est.'

the thirty-year exile according to Eusebius.¹⁶⁹ Heimo suspected that Bede had not actually done this, because the alternative was even less likely. According to Flavius Josephus, the Babylonian empire had held together for one hundred years after the destruction of Jerusalem.¹⁷⁰ Heimo speculates moreover that Bede had not dared to correct Eusebius here, because this author had been imbued with a near-prophetic authority by innumerable chroniclers.¹⁷¹ Apparently Heimo did not realize that this latter argument contradicted his first one, in which he states that Bede had frequently and rightfully corrected Eusebius. With this thorough and sometimes touching attempt to exonerate both Bede and Eusebius of any blame whatsoever, Heimo concludes the first book of his chronicle.¹⁷²

Liber secundus: De temporibus regnorum usque ad passionem Christi

In Book II Heimo sought to confirm the results achieved for the pre-Christian period with the help of non-Christian sources.¹⁷³ In Chapter 1 he hastens to point out that this does not constitute an attack on the veracity of the aforementioned Christian sources, but Heimo wished to leave nothing to chance and intended to study all available witnesses.¹⁷⁴ In this way he would be in a position to demonstrate that the gospel verity was also confirmed by non-Christian sources.¹⁷⁵ Heimo

¹⁶⁹ Munich, MS Clm. 18769, fol. 25': 'quia certe sicut in plerisque locis a cronica Eusebii laudabiliter declinavit, sic in hoc quoque loco declinasse'.

¹⁷⁰ Munich, MS Clm. 18769, fol. 25^v: 'si seductus non fuisse falsatis exemplaribus Iosephi, ubi legitur enumerando reges Babilonis, Nabuchodonosor post captam Ierosalem xxv annis regnavit, deinde Cuilmerodach xviii, deinde Egesar xl annis, deinde Laborsodach viiii mensibus postremo, Baldasar xvii annis. Hi annis omnes simul collecti, fiunt plusquam centum. Territus hac super abundantia numeri a priori sententio Ieremie et Iosephi, Beda refugus in imitatione Eusebii'. See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3389).

¹⁷¹ Munich, MS Clm. 18769, fol. 25': 'Huc accessit, quia fortasse sibi visum est non posse facile refelli, qui a pluribus antecessoribus vidit affirmari, et etiam quasi prophetica auctoritate approbari.'

¹⁷² Munich, MS Clm. 18769, fol. 25': 'Et hic primi libri huius tractatus finis sit.'

¹⁷³ Munich, MS Clm. 18769, fol. 25^v: 'Sicut decursum temporum ab initio mundi usque ad passionem Christi per historiam divinarum et canonicarum scripturarum ostendimus, sic debemus quantum possumus eundem decursum per historias gentilium maxime Romanorum assignare et distinguere.'

¹⁷⁴ Munich, MS Clm. 18769, fol. 25^v: 'non quin sciamus ad credulitatem et notificandam veritatem sufficere divinarum auctoritatem scriptorum, sed ne videamur contempnendo preterisse veracia et probabilia testimonia ethnicorum'.

¹⁷⁵ Munich, MS Clm. 18769, fol. 25^v: 'Neque non veritas a solis amicis, sed etiam ab inimicis eius abprobari querit.'

decided to take as his point of departure the year of Christ's Passion, during the reign of Emperor Tiberius, and from there to go back in time, namely to Abraham and even to Bel, very first ruler of the Assyrians.¹⁷⁶

In Chapter 2 Heimo reconstructs the years from Christ's Passion to the founding of Rome. To this end he starts with the generally accepted historiographical fact that Christ was born in the forty-second regnal year of Emperor Augustus and died in the eighteenth regnal year of Emperor Tiberius.¹⁷⁷ He equated this later year with the fourth year of the 202nd Olympiad and the 786th year since the founding of Rome ($202/4 = 786$ AUC).¹⁷⁸ Having gone over the years of the emperors (79), the Republican years (464), and finally the years of the kings (242), Heimo concludes that Rome was founded on 22 April in the third year of the sixth Olympiad ($6/3 = 1$ AUC).¹⁷⁹ Consequently precisely 785 years, 11 months, and 2 days had elapsed between the founding of Rome and the Passion of Christ.¹⁸⁰

In Chapter 3, Heimo goes back in time via the kings of Alba Longa. He counts 423 years from the first king, Ascanius Iulus, to the founding of Rome.¹⁸¹ Combined with the previously noted 785 years, Heimo arrived at a total of 1208 years from the foundation of Alba Longa to the Passion of Christ.¹⁸² At the same time

¹⁷⁶ Munich, MS Clm. 18769, fols 25^v–26^r: 'ascendamus autem ab eo quod notius et certius est scilicet a temporibus Octaviani et Tiberii augustorum, in quibus incarnatio Christi Ihesu cepit et consummata est, usque ad nativitatem Abrahe patriarche cui fere primum promissus est Christus, et etiam ultra, scilicet ad tempore Beli primum regis Assiriorum, supra quem non ascendit ulla celebris historia gentilium'.

¹⁷⁷ Munich, MS Clm. 18769, fol. 26^r: 'Ibitur plerique tam ethnici quam catholici cronographi contestantur quod xlii anno Octaviani cesaris augusti, transactis in eodem anno sex mensibus primae indictionis, Christus Ihesus conceptus sit viii kal. apr. et consequenter natus est viii kal. ian. passus vero ex quo conceptus est xxxiibus annis integris preteritis, incipiente quarto, in xviii anno Tiberii caesaris.'

¹⁷⁸ Munich, MS Clm. 18769, fol. 26^r: 'olimpiadis ducentesime secunde quarto anno, ab urbe condita dclxxxvi anno'.

¹⁷⁹ Munich, MS Clm. 18769, fol. 26^r: 'Condita est autem Rome ab Remo et Rom[ul]o geminis fratribus ut dicitur x kal. mai. die Iovis qui Iupiter Deus regnorum esse a paganis est creditus, olimpiadis sextae tercio anno qui est xvii annus Ezechie regis Iuda.'

¹⁸⁰ Munich, MS Clm. 18769, fol. 26^r: 'Colliguntur ergo ab urbe conditam usque ad passionem Christi Ihesu anni dclxxxv menses xi dies ii, scilicet a x kal. mai. usque ad viii kal. apr.'

¹⁸¹ Munich, MS Clm. 18769, fol. 27^r: 'Collectis autem annis Albanorum regum a primo Ascanio Iulo usque ad primum annum conditionis Rome fiunt ccccxxiii.'

¹⁸² Munich, MS Clm. 18769, fol. 27^r: 'Qui coniuncti cum dclxxxv quos superius numeravimus ab urbe condita usque ad passionem Christi, fiunt simul mille ducenti octo.'

Heimo notes that the Italian peninsula was ruled for a century and a half before the advent of Aeneas by Latinus, Faunus, Picus, and Saturnus.¹⁸³ He decides, however, not to include this period in his reckoning, for the data is incomplete and unreliable, and moreover represented a relatively brief period of time.¹⁸⁴

Heimo points out in Chapter 4 that there were three more powerful and older kingdoms at the time of Alba Longa, namely those of the Assyrians, the Greeks, and the Egyptians.¹⁸⁵ Of the three, the Assyrians were the most ancient and most powerful people.¹⁸⁶ Legend had it that the Assyrian kingdom had come into existence as much as 118 years before the incarnation of Abraham, namely in the thirteenth regnal year of Saruch.¹⁸⁷ Heimo calculates as well that the Egyptian Empire came into being 505 years before the Exodus, which coincided exactly with the year of Abraham's incarnation according to the Hebrew verity.¹⁸⁸ Ultimately Heimo calculates that the date of Abraham's incarnation coincided with the forty-second regnal year of the Assyrian ruler Ninus and the twenty-first regnal year of the Sicyon ruler Europs, exactly 505 years before the Exodus.¹⁸⁹

¹⁸³ Munich, MS Clm. 18769, fol. 27^v: 'Regnaverunt ante quam Eneas venisset in Italiam in ea, Latinus, Faunus, Picus, Saturnus, per annos centum quinquaginta.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 2818).

¹⁸⁴ Munich, MS Clm. 18769, fol. 27^v: 'quorum tempora non distinguimus, ideo quia nobis sunt obscuriora, et etiam per ea non multum possemus ascendere ad antiquiora.'

¹⁸⁵ Munich, MS Clm. 18769, fol. 27^v: 'Fuerunt vero in tempore quo regnum Albanorum exortum est, tria regni ceteris omnibus magis famosa et potentiora et antiquiora, scilicet regnum Assiriorum, regnum Sicioniorum, regnum Egiptiorum.'

¹⁸⁶ Munich, MS Clm. 18769, fol. 27^v: 'interque tamen regnum Assiriorum fuit potentius et antiquius.'

¹⁸⁷ Munich, MS Clm. 18769, fol. 27^v: 'Exortum quippe fuit sicut testantur qui de antiquitate scribunt cxviii annis ante nativitatem Abrahe, scilicet tercio anno decimo Saruch, qui fuit atavus Abrahae.' It is unsure to which source Heimo is referring.

¹⁸⁸ Munich, MS Clm. 18769, fol. 28^v: 'Colliguntur anni regni Egiptiorum ab exordio eius usque ad egressionem filiorum Israel de Egipto quingenti quinque. Totidem etiam colliguntur anni a nativitate Abrahe usque ad exitum filiorum Israel de Egipto secundum hebraicam veritatem.' According to the Hebrew reckoning 505 years did indeed elapse between Abraham's birth (AM 1948) and the Exodus of the people of Israel from Egypt (AM 2453): Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 1948 and AM 2453).

¹⁸⁹ Munich, MS Clm. 18769, fol. 29^v: 'Recollectis autem annis et regni Assiriorum a xlii anno Nini, et regni Sicioniorum a xxi anno Europs in quo natus est Abraham, inveniuntur anni d et v in quatuor regnis contemporaneis, scilicet Assiriorum, Sicioniorum, Egiptiorum, Hebreorum.'

In Chapter 5, Heimo subsequently attempts to calculate the period between Moses's exodus from Egypt and the advent of Alba Longa. He first posits that Alba Longa was founded in the ninth regnal year of the priest Helus, and then counts back 364 years to the Exodus.¹⁹⁰ Heimo thus logically reckons 869 years from the beginning of the Egyptian empire to the foundation of Alba Longa ($505 + 364 = 869$).¹⁹¹ Taking the 1208 years to the Passion of Christ, Heimo arrives at a grand total of 2077 years from the advent of the Egyptian empire to the Passion of Christ ($869 + 1208 = 2077$).¹⁹² The beginning of the Sicyon realm lay seventy-three years further back in time ($2077 + 73 = 2150$), and Heimo counts back 117 years to arrive at the foundation of the Assyrian empire ($2077 + 117 = 2194$).¹⁹³

Table 53

† Christ	–	–
° Roma	+ 785	785
° Alba Longa	+ 423	1208
Exodus	+ 364	1572
° Egyptii	+ 505	2077
° Sicioni	+ 73	2150
° Assyrii	+ 44	2194

In Chapter 6 Heimo next calculates the period from the foundation of Alba Longa to the beginning of the Persian empire.¹⁹⁴ For this purpose Heimo first turns to source data on the Egyptian dynasties. He begins his count from the eighth

¹⁹⁰ Munich, MS Clm. 18769, fol. 30^r: 'Ab exitu Israeles de Egipto usque ad nonum annum Heli sacerdotis ccclxiii annos supputavimus.'

¹⁹¹ Munich, MS Clm. 18769, fol. 30^r: 'Hos ccclxiii, si dv annis coniunxerimus, dcccclxviii annos habemus.'

¹⁹² Munich, MS Clm. 18769, fol. 30^{r-v}: 'Quos dcccclxviii annos si mille ccviii copulabimus iilxxvii annos ab exordio regni Egiptiorum, et a nativitate Abrahe usque ad passionem Domini, tam in secularibus quam in divinis computationibus concorditer decurrisset videbimus.'

¹⁹³ Munich, MS Clm. 18769, fol. 30^r: 'Si vero eis adhuc lxxiii annos preposuerimus iicl annos ab exordio regni Sicioniorum habebimus. Si denique cxvii ab exordio regni Assiriorum ultra quod non ascendit ulla celebris historia gentilium, usque ad xviii Tiberii caesaris annum, in quo passus est Dominus Ihesus Christus annos iicxciii reperimus.'

¹⁹⁴ Munich, MS Clm. 18769, fol. 30^r: 'Porro trecentos [*corr.* quadringentos] xxiii annos Albanorum regum usque ad urbis Romae conditionem, et consequenter dcclxxv annos ab urbe condita usque ad xviii annum Tyberii cesaris, si quis forte velit per tempora barbarorum regum, scilicet Assiriorum et Egiptiorum colligere.'

regnal year of Theoris, in which the twentieth Egyptian dynasty came into being.¹⁹⁵ Alba Longa was founded in the thirty-fifth year of this dynasty.¹⁹⁶ The endpoint of his reckoning fell in the forty-second regnal year of Amasis, the last ruler of the twenty-first Egyptian dynasty.¹⁹⁷ The Persian king Cyrus defeated this Amasis in the seventh year of his reign.¹⁹⁸ In total Heimo counts 657 years from the beginning of the twentieth Egyptian dynasty to Cyrus's victory over Amasis.¹⁹⁹ Forty-one years had to be subtracted from this sum, however, for two reasons:²⁰⁰ thirty-four years because Alba Longa was founded in the thirty-fifth year of this dynasty, and another seven years because Cyrus defeated Amasis in the seventh year of his reign.²⁰¹ Ultimately Heimo thus counts 616 years from the foundation of Alba Longa to the beginning of the Persian empire ($657 - 41 = 616$).²⁰²

In the second part of this same chapter Heimo makes a parallel calculation with the aid of Assyrian and Median sources.²⁰³ This time he takes the twenty-fifth regnal year of Tautanes as his point of departure, because it coincided with the eighth regnal year of his Egyptian counterpart Theoris.²⁰⁴ Alba Longa was founded in the

¹⁹⁵ Munich, MS Clm. 18769, fol. 30^v: 'Sciat quia Theoris regis Egiptiorum finitis vii annis in secundo anno Labdonis Iudicis Israel, incipit vicesima dinastia Egiptiorum.'

¹⁹⁶ Munich, MS Clm. 18769, fol. 30^v: 'in huius dinastiae xxxv anno cepit regnum Albanorum.'

¹⁹⁷ Munich, MS Clm. 18769, fol. 31^r: 'Postremo Amasis ultimus rex huius dinastiae Egiptiorum xlii annis regnavit.'

¹⁹⁸ Munich, MS Clm. 18769, fol. 31^r: 'Quibus finitis in septimo anno regni Ciri Persae regnum Egipti deficit.'

¹⁹⁹ Munich, MS Clm. 18769, fol. 31^r: 'Recollecto ergo omni tempore a primo anno post finitos vii annos Theoris qui est tercius annus Labdonis Iudicis Israhelis, usque ad tricesimum vitum annum Amasis ultimi regis Aegiptiorum qui est primus annus Ciri Perse qui cum Dario avunculo suo destruxit Babilonem, inveniuntur anni dclvii.' Heimo writes here that he counted only as far as the thirty-sixth regnal year of Amasis, but in fact he continues his count to the forty-second and last regnal year of Amasis. This is proven by the sum of all regnal years (657) and by the fact that Heimo later on subtracts the last seven regnal years of Amasis in order to arrive at the first regnal year of Cyrus.

²⁰⁰ Munich, MS Clm. 18769, fol. 31^r: 'Sed si ab his substrahantur xli anni.'

²⁰¹ Munich, MS Clm. 18769, fol. 31^r: 'scilicet xxxiiii a captivitate et vii a fine supputationis.'

²⁰² Munich, MS Clm. 18769, fol. 31^r: 'remanebunt dcxvi anni ab exordio Albani regum usque ad initium Persici regni sub Ciro'.

²⁰³ Munich, MS Clm. 18769, fol. 31^r: 'Nunc queramus eandem summam in annis regum Assiriorum et Medorum.'

²⁰⁴ Munich, MS Clm. 18769, fol. 31^r: 'Dictum est quod Tautanes rex Assiriorum regnavit xxxii annis cuius xxvus annus est secundus annus Labdonis. Septem anni qui supersunt, sint in initium huius supputationis.'

twenty-eighth year of his successor Teuteus.²⁰⁵ As he had done in the previous calculation, here Heimo counts 616 years from the foundation of Alba Longa to the first regnal year of the Persian ruler Cyrus.²⁰⁶ In the process Heimo makes an error of calculation: he counts forty-one years from the third regnal year of Labdo to the foundation of Alba Longa, namely the eighth year of the priest Helus. At the beginning of this calculation, however, he had counted thirty-five years from the twenty-fifth regnal year of Tautanes to the foundation of Alba Longa in the twenty-eighth regnal year of Teuteus ($7 + 28 = 35$). Presumably Heimo did everything in his power to arrive at exactly 616 years from the foundation of Alba Longa to the beginning of the Persian Empire, according to both the Egyptian and the Assyrian-Median reckonings.

In his seventh and last chapter Heimo draws up the balance of the calculations in Book II. To this end he notes the great agreement between the Egyptian and Assyrian-Median years of rule.²⁰⁷ The powerful Persian Empire began with Cyrus the Older and ultimately lasted for 232 years.²⁰⁸ It was subsequently subjugated by the Egyptians for exactly three hundred years, namely until the suicide of Cleopatra in the sixteenth regnal year of Augustus (30 BC).²⁰⁹ Finally, Heimo had to add the forty-two remaining regnal years of Augustus and the first eighteen regnal years of Tiberius in order to arrive at a total of 592 years from the foundation of the Persian

²⁰⁵ Munich, MS Clm. 18769, fol. 31': 'Post Tautanem primus regnavit Assiriis Teuteus 16 annis. Ab huc xxviii anno cepit regnum Albanorum.'

²⁰⁶ Munich, MS Clm. 18769, fol. 32^v: 'Recollectis igitur annis regum predictorum scilicet Assiriorum et Medorum a xxv anno Tautanis regis Assiriorum, qui est tercius annus Labdonis Iudicis Israhelis, usque ad primum annum Cirum Perse cum destructum est regnum Babilonicum et incepit Persicum, inveniuntur anni dclvii. A quibus si ut supra a totidem annis Egiptiorum subtrahantur xli anni videlicet qui defluerunt a tertio anno Labdonis usque ad octavum annum Heli sacerdotis, in quo cepit regnum Albanorum, remanebunt nichilominus anni dcxvi usque ad initium regni Persarum.'

²⁰⁷ Munich, MS Clm. 18769, fol. 32^r: 'Videsne diligens calculator quomodo convenient ut tempore sic quoque nervo anni regum Egiptiorum cum annis regum Assiriorum Medorumque?'

²⁰⁸ Munich, MS Clm. 18769, fol. 32^r: 'Sed iam his regnis scilicet Assiriorum Medorum, Babiloniorum per Cirum coadunatis et ad Persas translatis a primo anno Ciri incipiamus, et sequentium serie temporum primo per tempora Persici regni quod ccxxiibus annis stetit, sicut in superiori libro ostendimus colligamus.'

²⁰⁹ Munich, MS Clm. 18769, fol. 32^r: 'Deinde deficiente regno Persarum, descendamus ad inferiora per tempore Alexandrini regni quod v annis magnus Alexander et Ptolomei Lagide tenuerunt per iuges ccc annos usque ad mortem Cleopatre, scilicet a morte Darii ultimi regis Persarum usque ad xvi annum imperii Octaviani caesaris augusti.'

Empire to the Passion of Christ ($232 + 300 + 42 + 18 = 592$).²¹⁰ Because the Babylonian exile had begun precisely seventy years prior to this, this calculation confirmed that the fifth *aetas* had lasted a total of 662 years ($70 + 592 = 662$).

Liber tertius: De prophetis ebdomadibus Danielis

In the introductory first chapter of his third book, Heimo clearly states that he also wanted to arrive at this total of 592 years with the help of the seventy prophetic weeks (Dan. 9. 24–27).²¹¹ Jerome of Strido had already noted that many Church Fathers had interpreted these seventy weeks as a period of 1490 years, but the precise beginning and endpoint of this period remained obscure.²¹²

In his second chapter Heimo studies the chronicle of Eusebius of Caesarea with respect to this issue. Eusebius had written that the seventy prophetic weeks had begun with the Babylonian exile and were to be calculated using a solar era.²¹³ The first sixty-nine weeks lasted precisely 483 years ($7 \times 69 = 483$) and ended with Alexander Janaeus (d. 76 BC).²¹⁴ In a second hypothesis, however, Eusebius had these first sixty-nine weeks start with the reconstruction of the temple in the sixth

²¹⁰ Munich, MS Clm. 18769, fol. 32^v: ‘His iungantur anni xli quibus postea Augustus et xviii quibus Tiberius, et fiunt simul dxcii anni ab initio regni Persarum usque ad passionem Christi Ihesu, et his secundus liber finem habeat.’ Here Heimo once again manipulates his chronographical data. Augustus ruled for fifty-six years, so that only forty instead of forty-two years should be added following the death of Cleopatra ($56 - 16 = 40$).

²¹¹ Munich, MS Clm. 18769, fol. 33^r: ‘Nunc Domino adiuvante studeamus eundem numerum annorum dxciiiorum colligere in prophetis ebdomadibus Danielis, cui desideranti scire tempus relaxationis populi sui respondit angelus dicens: “Daniel intellige sermones lxx ebdomades abbreviate sunt super populum tuum et super urbem sanctam tuam.” Et post pauca: “Ab exitu sermonis ut iterum edificetur Ierosalem usque ad Christum ducem ebdomades vii et ebdomades lxii erunt, et post ebdomades vii et lxii occidetur Christus.” Et paulo post: “Confirmabitur autem pactum multis ebdomada una, et dimidio ebdomade unius deficiet hostia et sacrificium.”’

²¹² Munich, MS Clm. 18769, fol. 33^r: ‘Itaque plerique patres concorditer easdem lxx ebdomadas icccxc annos explicuerunt, sed in modo et initio ac fine eorundem annorum multum dissenserunt.’

²¹³ Munich, MS Clm. 18769, fol. 33^r: ‘Eusebius quippe solares annos accepit, et eos a primo anno Ciri Perse qui Iudeorum captivitatem relaxavit incipit.’

²¹⁴ Munich, MS Clm. 18769, fol. 34^v: ‘Quo mortuo frater suus Alexander qui et Ianneus rex et pontifex xxvii annis regnaverunt. Hactenus a primo anno Cyri Perse supputantur anni cccclxxxiii quos vii et lxii ebdomade efficiunt in quibus pontifices prescripti Iudeis prefuerunt.’ See also Eusebius and Jerome, *Chronicon*, Olymp. 186/3.

regnal year of Darius, only to have them end in the first regnal year of Herod the Great (d. 4 BC).²¹⁵

Heimo devotes his third chapter to Julius Africanus, who presented an entirely different interpretation to that of Eusebius.²¹⁶ He was of the opinion that the seventy prophetic weeks ended with the Passion of Christ and should be reckoned as 490 lunar years.²¹⁷ He set the beginning of this period in the twentieth regnal year of Artaxerxes (d. 424 BC) and dated the Passion of Christ in the sixteenth regnal year of Tiberius.²¹⁸ This period of 490 lunar years actually lasted 475 solar years or twenty-five nineteen-year lunar cycles ($25 \times 19 = 475$).²¹⁹ Because every nineteen-year lunar cycle also has seven embolismic months, however, Heimo added 175 embolismic months to this period ($25 \times 7 = 175$), or fourteen years and seven months ($175 = 14 \times 12 + 7$).²²⁰ Heimo now arrived at a total duration of 489 years and 7 months.²²¹ The last seven months together with the first five months of

²¹⁵ Munich, MS Clm. 18769, fol. 34^v: 'A sexto anno Darii qui post Cirum et Canbisen regnavit, et sub quo templum consummatum est, usque ad primum annum regni Herodis numerat ebdomadas vii et lxii, scilicet annos cccclxxxiii quando Christus, id est Hircanus novissimus rex et pontifex Iudeorum de genere Machabeorum interiit, et cessavit a modo Christorum Domini legalis successio. In his duabus sententiis Eusebii pensendum est quia vel in Alexandro et Ianneo, vel filio eius Hircano crisma id est unctionem quae secundum legem fiebat interisse et finem accepisse dicitur.' See also Eusebius and Jerome, *Chronicon*, Olymp. 65/1.

²¹⁶ Munich, MS Clm. 18769, fol. 35^r: 'Ab huius oppositionibus securus est Affricanus, longe ab Eusebio dissentiens.'

²¹⁷ Munich, MS Clm. 18769, fol. 35^r: 'Nam et lxx ebdomadas usque ad passionem Christu Ihesu pertingere credit, et eas per lunares annos cccxc quorum unus quisque tantum lunationes xii accipiat digerit.' See also Beda Venerabilis, *De temporum ratione liber*, ch. 9.

²¹⁸ Munich, MS Clm. 18769, fol. 35^v: 'et a xx anno Artaxerxis Longimani qui post relaxationem captivitatis xcvi anno imperium Persarum accepit, inchoat, et in xvi anno Tyberii augusti consummat, in quo aetiam anno Christum Ihesum passum esse arbitrantur'.

²¹⁹ Munich, MS Clm. 18769, fol. 35^v: 'Colliguntur autem a predicti Artaxerxis xx anno qui erat octogesime tercie olimpiadis quartus annus usque ad xvi annum imperii Tiberii qui fuit ducentesimae secundae olimpiadis secundus annus transisse cccclxxv anni solares. Hi continent cccxc annos lunares, quorum unusquisque capiat tantum lunationes xii. Quod sic probatur cccclxxv anni solares, claudunt xxv ciclos lunares, decennovenales.'

²²⁰ Munich, MS Clm. 18769, fol. 35^v: 'Nam vigies quinquies xviii fiunt cccclxx[v]. Porro in cccclxx[v] annis sunt embolismales menses clxxv, qui divisi per xii, faciunt annos xiiii, et remaneant vii menses.'

²²¹ Munich, MS Clm. 18769, fol. 35^v: 'Hos xiiii annos iunge superiobus cccclxxv annis, et fiunt cccclxxxviii et vii menses.'

Tiberius's sixteenth regnal year comprised the 490th lunar year of these seventy prophetic weeks.²²²

In the fourth chapter, Heimo formulates his objections to each of the two chronographers. His first reproach was that both authors adhered to relatively simplistic interpretations of the seventy prophetic weeks. Both Eusebius and Julius Africanus counted each week as a period of seven years, and thus made no use of other existing theories that reckoned one prophetic week as a period of seven days, seven weeks, seven months, or even seven Holy Years.²²³ Moreover, Julius Africanus took as his starting point the twentieth regnal year of Artaxerxes, whereby he began to count only 105 years after the Babylonian exile.²²⁴

According to Heimo the solution lay in a thorough reading of the relevant passage from the book of Daniel (Dan. 9. 24–27). At the beginning of his fifth chapter, Heimo therefore presents Gabriel's prophetic words addressed to Daniel.²²⁵ He concludes from this that the seventy prophetic weeks began at the

²²² Munich, MS Clm. 18769, fol. 35^v: 'His vii mensibus si quinque menses de xvi anno Tiberii annumerentur lxx ebdomade id est cccxc anni lunares complentur, estimati more insolito, tam Iudeis quam Christianis qui in primo mense scilicet aprili semper facere pasca consuerunt.'

²²³ Munich, MS Clm. 18769, fols 35^v–36^r: 'Caeterum cum apud Iudeos diverse sint species ebdomadarum prima dierum ut de sabbato ad sabbatum, secunda septimanarum ut pentecostes, tertia mensium ut septimus mensis, quarta annorum ut septimus annus, quinta septimorum annorum ut iubileus annus, nequeo satis mirari quare predictarum sententiarum auctores, solas annorum ebdomades posuerint, caeterasque omnes pretermiserint, quasi hae solae et ab angelo premonstrate sint specialius et ad explanandum oraculum suffecerunt.'

²²⁴ Munich, MS Clm. 18769, fol. 36^r: 'Aut si predictae lxx ebdomades iuxta Affricanum a xx aan Artaxersis inchoantur et post cccxc annos lunares xii mensium singulos in xvi anno Tiberii caesaris terminantur, nichilominus centum et quinque anni qui eas precesserunt ab eis excluduntur.'

²²⁵ Munich, MS Clm. 18769, fol. 36^r: 'Ait ergo Daniel: "In anno primo Darii filii Assueri, ego Daniel intellexi in libris ut complerentur" desolationis Ierosalem lxx anni, et oravi Dominum Deum et dixi: *Obsecro Domine Deus, ne moreris propter temetipsum Deus meus qui a nomen tuum invocatum est super civitatem et super populum tuum.* Ad huc me loquente in orationem mea, ecce Gabriel cito volans ad me loquente ad me dixit mihi: *Daniel anim adverte visionem et intellige sermones. Septuaginta ebdomades abbreviate sunt super populum tuum et super urbem sanctam tuam, ut consummetur iniquitas, et adducatur iusticia sempiterna, et impleatur visio et prophetae, et ungatur sanctus sanctorum. Scito ergo et animadverte: Ab exitu sermonis ut iterum edificetur Ierosalem usque ad Christum ducem ebdomades vii et ebdomades lxii erunt. Er rursus edificabitur platea et muri in angustia temporum. Et post ebdomades lxii occidetur Christus, et non erit eius populus qui eum negaturus est et civitatem et sanctuarium dissipabit populus, cum duce venturo, et finis eius vastitas, et post finem belli statuta desolario. Confirmabit autem pactum multis ebdomada una et dimidio ebdomadis deficiet hostia et sacrificium et in templo erit abominatio desolationis, et usque ad finem et consummationem perseverabit desolatio.*' See also Daniel 9. 1–27.

end of the Babylonian exile, namely in the first regnal year of Cyrus.²²⁶ Next Heimo refuted the idea that Christ had died immediately after the sixty-ninth or seventieth week.²²⁷ In his opinion there was an extra week, whose length was different to all the other weeks and in which the prophetic words of Gabriel were fulfilled.²²⁸ Only in the middle of the very next week would Christ be crucified.²²⁹

Following this exegetical analysis of the structure of the seventy prophetic weeks, Heimo turns in the sixth chapter to the precise duration of this period.²³⁰ He distinguishes seven different interpretations, the first five of which go back to Mosaic law.²³¹ According to these five interpretations each prophetic week lasted seven days, seven weeks (of fifty days), seven months, seven years, or seven Holy Years (of fifty years).²³² Heimo decided, however, to add two further possibilities, both of which built upon previous interpretations.²³³ The sixth formula was a

²²⁶ Munich, MS Clm. 18769, fols 37^v–38^r: ‘Scito quod a Ciro sub cuius potestate nunc estis exhibit sermo ut redeatis, et terram Iudeam in qua Dominus salutem operabitur inhabitetis, et tu animadverte quia ab exitu sermonis et licentie vestri reditus lxx ebdomades erunt, antequam veniat quem prophetae sanctum sanctorum vocaverunt.’

²²⁷ Munich, MS Clm. 18769, fol. 38^r: ‘Ceterum non statim post lxxviii ebdomadas occidetur Christus, quod premissum est kxx ebdomadas abbreviate sunt, super populum tuum. Nec aetiam statim post lxx ebdomadas transactas.’

²²⁸ Munich, MS Clm. 18769, fol. 38^r: ‘donec una ebdomada specialis et dissimilis premissis lxx ebdomadibus confirmabit verbis, exemplis, signis, prodiis, hoc quod multis est pactum et sub iuramento premissum a Domino’.

²²⁹ Munich, MS Clm. 18769, fol. 38^r: ‘Et postquam confirmabit illa una et singularis ebdomas pactum multis, statim consequenter in dimidio ebdomadis occidetur Christus.’

²³⁰ Munich, MS Clm. 18769, fol. 38^r: ‘Hactenus verba angeli respondentis Danieli, quantum liucuit ad communem ordinem et modum loquendi explanavimus, nunc tempus et modum iniciumque ac distinctionem ebdomadam consideremus.’

²³¹ Munich, MS Clm. 18769, fol. 38^r: ‘Scimus quod in veteri testamento Dominus per Moysen precepit filiis Israhelis observare diversas species ebdomadam.’ Heimo derived this information from Beda Venerabilis, *De temporum ratione liber*, ch. 8.

²³² Munich, MS Clm. 18769, fols 38^v–39^r: ‘ex quibus prima fuit vii dierum [. . .]. Secunda species ebdomadis fuit vii septimanarum id est quinquaginta dierum [. . .]. Tercia species ebdomadis est qua septimum mensem celeberrime servaverunt [. . .]. Quarta spes ebdomadis est septimorum annorum [. . .]. Quinta species ebdomadis est septies vii annorum id est xlviii quibus quinquagesimus annus annumerabatur et propter communem omnium remissionem et liticiam iubileus dicebatur.’

²³³ Munich, MS Clm. 18769, fol. 39^r: ‘Sunt adhuc due species ebdomadam, nec prorsus a superioribus differentes, nec omnino cum eis convenientes, sed in hoc loco prophetalis theorie angelica auctoritate subintroducuntur.’

combination of the first four interpretations, whereby every prophetic week lasted eight(!) days, seven weeks, seven months, and seven years.²³⁴ According to a seventh interpretation, a Holy Year of exactly fifty years had to be added.²³⁵ With the aid of these last two interpretations, Heimo now wished to calculate the exact duration of the seventy prophetic weeks, namely from the end of the Babylonian exile in the first regnal year of Cyrus to the year of Christ's Passion in the eighteenth regnal year of Tiberius.²³⁶

In the seventh chapter of his third book, Heimo employs the sixth interpretation by attributing to each prophetic week a duration of eight days, seven weeks of fifty days each, seven months, and seven years.²³⁷ After seventy weeks eight days were converted into 560 days ($70 \times 8 = 560$), and seven weeks of fifty days each converted into 3500 days ($70 \times 50 = 3500$).²³⁸ This produced a subtotal of 4060 days, which coincided with a period of eleven solar years and forty-five days ($11 \times 365 + 45 = 4060$).²³⁹ Next Heimo calculates that seven months after seventy years resulted in 490 months, which corresponded to forty years and ten months ($12 \times 40 + 10 = 490$).²⁴⁰ He now arrived at a new subtotal of fifty-one years, eleven months, and fifteen days.²⁴¹ The addition of 490 years ($70 \times 7 = 490$) resulted in a sum of 541 years, 11 months, and 15 days.²⁴² Having added one Holy Year,

²³⁴ Munich, MS Clm. 18769, fol. 39^r: 'Ex quibus prior constituitur ex prioribus iiiior speciebus legalium ebdomadum comprehendens viii dies, vii septimanas, id est I dies, vii menses, vii annos.'

²³⁵ Munich, MS Clm. 18769, fol. 39^r: 'Altera tantumdem comprehendit et insuper septies vii id est I annos.'

²³⁶ Munich, MS Clm. 18769, fol. 39^r: 'His duabus speciebus ad Danielelem angelus in presenti oraculo usus est fuit, nec mirum, siquidem nova erat nuntiaturus quibus tamen vetera sacramentaliter testimonium darent, et ideo congruentissime novis sermonibus usus fuit, qui tamen ex precedentibus et pene usitatis rebus et vocibus detracti essent.'

²³⁷ Munich, MS Clm. 18769, fol. 39^r: 'Sumamus itaque priorem prophetalis ebdomade speciem, scilicet viii dies vii septimanas id est quinquaginta dies vii menses vii annos et per lxx ducamus hoc modo.'

²³⁸ Munich, MS Clm. 18769, fol. 39^r: 'Septuagies viii dies sunt dlx. Item septuagies septem septimane plene id est quinquaginta dies sunt iiii dies.'

²³⁹ Munich, MS Clm. 18769, fol. 39^r: 'Hos iunge superioribus et fiunt simul dies iiii lxx, id est xi anni solares et in super xlv dies.'

²⁴⁰ Munich, MS Clm. 18769, fol. 39^r: 'Item septuagies vii menses sunt cccxc qui faciunt annos xl et supersunt decem menses.'

²⁴¹ Munich, MS Clm. 18769, fol. 39^r: 'Iunge superioribus et fiunt anni lius, menses xi, dies xv.'

²⁴² Munich, MS Clm. 18769, fol. 39^{r-v}: 'Item septuagies vii anni sunt cccxc, et hos iunge superioribus et fiunt anni dxli, menses xi, dies xv.'

Heimo arrived at a total of 591 years, 11 months, and 15 days.²⁴³ Finally, Heimo decided to add a number of extra days, because Christ was crucified in half of the week immediately following and because in his view that half was not to be taken too literally.²⁴⁴ Because Christ had died on a Friday (*feria sexta*), Heimo felt it not illogical in this case to add a period of five days.²⁴⁵ Ultimately Heimo calculates, then, that the seventy prophetic weeks from the first regnal year of Cyrus to the year of Christ's Passion lasted a total of 591 years, 11 months, and 20 days.²⁴⁶

In his eighth chapter Heimo uses this sixth interpretation to calculate the date upon which Cyrus freed the Jewish people from the Babylonian exile. To do this he started with the fact that Christ had died on Friday 25 March (*luna xv*).²⁴⁷ Counting back 591 complete years he arrives at 24 March.²⁴⁸ Next he counts eleven months back and stops at 24 April.²⁴⁹ Finally, he was compelled to count back

²⁴³ Munich, MS Clm. 18769, fol. 39: 'Omnibus his addatur semel et non septuagies una illa specialis ebdomada species vii annorum, id est l anni, ne qua species legalium ebdomadatum deesse inveniatur, et fiunt simul anni dxcī, menses xi, dies xv.'

²⁴⁴ Munich, MS Clm. 18769, fol. 39: 'Denique quoniam scriptum est "et in dimidio ebdomadis deficiet hostia et sacrificium et in templo erit abominatio desolationis", addamus adhuc dimidia ebdomadem. Scimus autem quod dimidium non semper significat divisionem cuiuslibet rei, sed aliquando non consummationem. Verbi gratia, cum videmus vestem nimis curtam dicimus eam esse dimidiam, et Ezechias rex egrotans dixit, ego dixi in dimidio dierum meorum, ac si dixisset cum summa naturalis meae etatis nondum esset consummata. Similiter et hic accipiamus dimidiam, id est non plene consummatam ebdomadem. Porro utrum hec ebdomada sit tantummodo dierum, vel septimanarum vel mensium ven annorum interim discutere differamus, sed ex ipsius rei eventu et habitu edocti, ebdom Adam dierum accipiamus.'

²⁴⁵ Munich, MS Clm. 18769, fol. 39: 'Hos quinque dies, scilicet primam et secundum et tertiam et quartam et quintam feriam, addamus premissis xv diebus.'

²⁴⁶ Munich, MS Clm. 18769, fols 39^v–40^r: 'et habebimus solares annos dxcī, menses xi, dies xx, ab ipsa die in qua exivit a Ciro sermo relaxatae captivitatis Israelis et licentia ut iterum reedificetur Ierosalem et templum usque ad ipsam diem in qua occisus est Christus Ihesus unicus et verus sanctus sanctorum cuius sanguis est unguentum et curatio nostrorum vulnerum omnium spritualium et carnalium originalium et actualium ut et nos sicut ipse sanctus est efficiamus sancti in fide and conformitate ipsius capitis nostri summae sancti.'

²⁴⁷ Munich, MS Clm. 18769, fol. 40: 'Passus est autem Dominus Ihesus viii kal. apr. in feria via luna existente xva secundum Iudeos.'

²⁴⁸ Munich, MS Clm. 18769, fol. 40: 'Igitur ab viiii kal. apr. incipe predictos dxcī annos ac retrocomputans in eisdem viiii kal. apr. numerum annorum crescentium muta, donec dxcī annos compleas.'

²⁴⁹ Munich, MS Clm. 18769, fol. 40: 'Quibus completis, superfluos xi menses in eiusdem viiii kal. apr. incipe, et primum in viiii kal. mar. termina, secundum in viiii kal. geb., tertium in viiii kal. ian.,

another twenty days and concludes that Cyrus brought an end to the Babylonian exile on 4 April.²⁵⁰ Counting back in the other direction, Heimo naturally ends up where he started, namely 25 March as the date of Christ's Passion.²⁵¹

Heimo wanted to leave nothing to chance, however, and anticipates every possible criticism. In the ninth chapter he therefore calculates once again the duration of the seventy prophetic weeks, but this time according to the lunar reckoning used by the Jews at that time.²⁵² Heimo's basic premise was that the solar and lunar reckonings of the same period must always produce the same results.²⁵³ As he had done in Chapter 7, he converted eight days into 560 days ($70 \times 8 = 560$) and seven weeks into 3500 days ($70 \times 50 = 3500$).²⁵⁴ The sum of both numbers was once again 4060 days, which according to Heimo this time corresponded to eleven lunar years and forty-six days ($(7 \times 354) + (4 \times 384) + 46 = 4060$).²⁵⁵ The period of seven months expanded to 490 months ($70 \times 7 = 490$), which in lunar terms was equivalent to forty years, each consisting of twelve lunations and ten lunar months in addition ($40 \times 12 + 10 = 490$).²⁵⁶ He observes that these forty lunar years consisted of

quartum in viii kal. dec., quintum in viii kal. nov., sextum in viii kal. oct., septimum in viii. kal. sep., octavum in viii kal. aug., nonum in viii kal. iul., decimum in viii kal. iun., undecimum in viii kal. mai.'

²⁵⁰ Munich, MS Clm. 18769, fol. 40^r: 'Deinde xx dies adhuc superfluos in viiii kal. mai. incipe, et pridie non. apr. comple, et nisi te revincat diligentior inquisitio et verior ratio, in hac die, scilicet ii non. apr., a Ciro exivisse sermonem reaedificandi Ierosalem existimato.'

²⁵¹ Munich, MS Clm. 18769, fol. 40^r: 'E converso ab eadem die incipiens dxcii annos descendendo comple in eadem die et consequenter ex xi mensibus residuis primum ii non. mai termina, secundum iii non. mai., tertium iii non. iul., quartum ii non. aug., quintum ii non. sep., sextum ii non. oct., septimum ii non. nov., octavum ii non. dec., nonum ii non. ian., decimum ii non. feb., undecimum ii non. mar. Deinde xx dies qui remanent a ii non. mar. inchoans in viiia kal. apr. quo dies Christus Ihesus crucifixus est finiri videbis.'

²⁵² Munich, MS Clm. 18769, fol. 40^r: 'Sed dices forsitan Iudeos secundum cursum lunae omnes suas ferias, menses et annos observare, et ideo predictos ebdomadum annos convenientius et verius secundum lunarem compotum estimari debere.'

²⁵³ Munich, MS Clm. 18769, fol. 40^r: 'Respondeo quod sive secundum solem sive lunam estimatur, semper ad eandem summam et finem redire videntur.'

²⁵⁴ Munich, MS Clm. 18769, fol. 40^r: 'Etenim septuagies viii dies sunt dlx. Item septuagies l dies sunt iiii d.'

²⁵⁵ Munich, MS Clm. 18769, fol. 40^r: 'Hos iunge superioribus et fiunt dies iiii l x, id est xi anni lunares ex quibus vii sunt communes iiiior embolismales, et supersunt dies xlvii.'

²⁵⁶ Munich, MS Clm. 18769, fol. 40^{r-v}: 'Item septuagies vii menses sunt ccccxc et faciunt xl annos lunares, et singulos ex xii mensibus constantes, et supersunt x menses quod duodecies xl sunt cclclxxx et supersunt x.'

twenty-six common and fourteen embolismic years.²⁵⁷ The subtotal came now to fifty-one years, eleven months, and sixteen days.²⁵⁸ To this Heimo adds 490 years ($70 \times 7 = 490$), which results in a new subtotal of 541 years, 11 months, and 16 days.²⁵⁹ As he had done in the seventh chapter, Heimo added one Holy Year of fifty years and five extra days, which results in a total duration of 591 years, 11 months, and 21 days.²⁶⁰

Similar to what he had done in his eighth chapter, Heimo here uses this lunar reckoning to calculate the age of the moon of the day on which Cyrus released the Jewish people from the Babylonian exile. He begins his argument by positing that the Jews began the days of unleavened bread on luna xv in their month of Nisan.²⁶¹ In a solar reckoning this starting point would have to be calculated each year with the aid of a nineteen-year lunar cycle.²⁶² Consequently the lunar parameters after 589 years or thirty-one nineteen-year lunar cycles would be exactly the same, and he only had to count back two years to arrive at the requisite 591 years ($31 \times 19 + 2 = 591$).²⁶³ If in the year of Christ's Passion 25 March fell on luna xv with epact 11, then the same thing had happened 589 years earlier, namely in the fourth regnal year of Cyrus.²⁶⁴ Logically luna xv of the Jewish month Nisan the preceding year

²⁵⁷ Munich, MS Clm. 18769, fol. 40^v: 'Ex his xl annis sunt xxvi communes et xiiii sunt embolismales.'

²⁵⁸ Munich, MS Clm. 18769, fol. 40^v: 'His xl annis et x mensibus iungantur superiores xi anni et dies xlv, et fiunt simul anni li, menses xi, dies xvi.'

²⁵⁹ Munich, MS Clm. 18769, fol. 40^v: 'Item septuagies vii anni sunt cccxc, et hos iunge superioribus et fiunt anni dcli, menses xi, dies xvi.'

²⁶⁰ Munich, MS Clm. 18769, fol. 40^v: 'His adde semel l annos et v dies, et fiunt anni dxcii, menses xi, dies xxi.'

²⁶¹ Munich, MS Clm. 18769, fol. 40^v: 'Denique ut utentes argumento omnibus catholicis compotistis noto, ipsam rem evisceremus. Iudei in xv luna primi mensis suis Nisan, scilicet nostri aprilis, dies azimorum incipiunt.'

²⁶² Munich, MS Clm. 18769, fol. 40^v: 'Hoc autem nullatenus possent stabiliter et fixe observare, nisi ciclum paschalem qui per xix annos voluiter fixe custodirent.'

²⁶³ Munich, MS Clm. 18769, fol. 40^v: 'Porro in decemnovenali ciclo cursus solis et lunae prorsus coaequantur, sunt vero in dxcii annis cicli decemnovennalis xxxi et duo anni, quia trigies bis [corr. semel] xix sunt dlxxxviii anni et supersunt duo anni.'

²⁶⁴ Munich, MS Clm. 18769, fol. 40^v: 'Fuit autem primi mensis quando Christus passus est dies xva sicut prediximus viii kal. apr. xi epactis existentibus, similiter annus dlxxxviii ante passionem Domini qui fuit quartus annus regni Darii et Ciri lunam primi mensis habuit xvam viii kal. apr. xi epactis existentibus.'

fell on 5 April, with epact 29.²⁶⁵ Finally, luna xv fell in the 591st year before Christ's Passion on 17 March, with epact 18.²⁶⁶ Heimo begins now to count backwards by eleven lunar months and arrives at 29 April (luna xvi).²⁶⁷ The beginning of this Jewish month of Lar fell logically on 14 April (luna i), and consequently 4 April fell on luna xxi of the preceding Jewish month Nisan, the day on which Cyrus had released the Jewish people from the Babylonian exile.²⁶⁸ Counting back in the other direction, Heimo once again logically ends up where he started, namely the Passion of Christ on 25 March (luna xv).²⁶⁹ Heimo thus concluded that, by using both solar and lunar evidence, he had proven that the seventy prophetic weeks had begun on 4 April (luna xxi) in the first regnal year of Cyrus and that after the one-time addition of fifty years and five days, they ended on the day

²⁶⁵ Munich, MS Clm. 18769, fol. 40^v: 'Annus dxcus ante passionem Domini qui fuit tercius annus Ciri, lunam primi mensis habuit xvam non. apr. epactis xxviii [*corr.* xxviii] existentibus.' If 25 March fell in any given year on luna xv, then the same date in the previous year would have fallen eleven lunar days earlier, namely on luna iiii (15 - 11 = 4). Consequently, the next luna xv in this year fell indeed on 5 April.

²⁶⁶ Munich, MS Clm. 18769, fol. 40^v: 'Annus dxcus ante passionem Domini qui fuit secundus Ciri, lunam primi mensis habuit xvam xv kal. apr. epactis xviii existentibus.' If 5 April fell in any given year on luna xv, then the same date in the previous year would have fallen eleven lunar days earlier, namely on luna iiii (15 - 11 = 4). Consequently, the closest dates with luna xv in this year fell on 16 April and indeed on 17 March.

²⁶⁷ Munich, MS Clm. 18769, fols 40^v-41^r: 'Ab hac die, scilicet xv kal. apr., et a luna eiusdem mensis xva retrograda computatione xi menses lunares numera et eos iiii kal. mai. termina, luna existente xvia.'

²⁶⁸ Munich, MS Clm. 18769, fol. 41^r: 'Deinde a iiii kal. mai. et ab eiusdem diei luna xv nichilominus retrograde numerans, lunam primam qui hebraice Lar dicitur invenies xviii kal. mai., et xxia luna aprilis qui Nisan dicitur occurret tibi ii non. apr. in primo anno Ciri qui est dxciius ante passionem Domini, in die iudaicae captivitatis abolutionis.' In this calculation, however, Heimo counted twenty-five instead of twenty-one days back. After 591 years and 11 months he arrived at 29 April (luna xvi). After counting back the requisite twenty-one days, he should not have arrived at the hoped-for 4 April (luna xxi), but rather at 8 April (luna xxv). This is another example of Heimo's manipulation of numbers in order to arrive at the desired results.

²⁶⁹ Munich, MS Clm. 18769, fol. 41^r: 'Quod si e converso antegrada computatione a pridie non. apr. et a luna xxia iudaici Nisan ad xvam lunam dominicae passionis descendere velis, xxi [*corr.* xxxi] decemnovennales ciclos id est annis dlxxxviii iam te estimes transcurrisse et semper in inicio cicli xxiam lunam ii non. apr. occurrisset? In dxc anno lunam Nisan invenies xxiam viiii kal. apr. existentibus xviii epactis. In dxc [*corr.* dxcii] anno lunam Nisan invenies videbis xxiam iiii id. apr. sub epactis xxviii. Deinde xi mensibus id est cccxxv diebus transcurris in kal. mar. luna occurrente xxia, complebis eandem lunam xxviii vi id. mar., et consequenter profecto xi epactis existentibus, cernes lunam xvam Nisan viiii kal. apr. in die dominicae passionis.'

of Christ's Passion, namely on 25 March (luna xv).²⁷⁰ In both calculations Heimo opted for the solar reckoning, because it was more practical and serviceable for his further calculations.²⁷¹

In Chapter 10, however, Heimo decided to refer the structure of these prophetic weeks to important events in the history of the Jewish people.²⁷² The first seven prophetic weeks end with the completion of the reconstructed Temple of Solomon in the seventh regnal year of Darius.²⁷³ The actual construction had taken forty-six years (John 2. 20), but Heimo adds that the temple hall was completed three years later and the final appointments and adornments had not been completed until five years later.²⁷⁴ The reconstruction of the temple had thus taken a total of fifty-four years ($46 + 3 + 5 = 54$), which according to Heimo corresponded to the first seven prophetic weeks from the book of Daniel.²⁷⁵ One prophetic week, after all, lasted eight days, seven weeks of fifty days each, seven months, and seven years, so that after seven prophetic weeks a total of fifty-four years, two months, and eleven days had elapsed.²⁷⁶ These first seven prophetic weeks thus extended from 4 April (luna xxi) in the first regnal year of Cyrus to 14 June (luna xxix) in the sixteenth regnal year

²⁷⁰ Munich, MS Clm. 18769, fol. 41^r: 'Videsne diligens et expedite calculator quomodo eadem quantitas ebdomadum lxx et unius et dimidie in dcxi annis, xi mensibus et diebus xx claudatur, sive secundum solem sive secundum lunam computetur, incipiens a primo anno Ciri a pridie non. ap. a xxia luna eiusdem mensis, et disenens in die qua passus est Christus viii kal. apr. luna existente xva. Sive e converso incipiens ab viii kal. apr. et luna xva dominicae passionis et terminans in primo anno Ciri pridie non. apr. in luna xxia.'

²⁷¹ Munich, MS Clm. 18769, fol. 41^r: 'attamen computatio secundum solem est expeditior. Unde etiam in his que consequenter dicturi sumus nobis erit usitator'.

²⁷² Munich, MS Clm. 18769, fol. 41^r: 'Distincte sunt autem predictae ebdomades in vii et lxii et unam ebdomadem specialem, et dimidium ebdomadis non super vacuae ut visum est sanctis patribus sed pro designandis diversis et notabilibus post relaxatam captivitatem Iudaicae gentis eventibus.'

²⁷³ Munich, MS Clm. 18769, fol. 41^r: 'Postquam Darius filius Idaspis Iudeis clemens plenam licentiam impensas dedit ut templum proficeretur et huius vii^o anno consummatum est.'

²⁷⁴ Munich, MS Clm. 18769, fol. 41^r: 'Itaque xvi annis templum consummatum est, et peribola eius ut Iosephus dicit in tribus annis, reliqua vero necessaria et ornatus eius in quinque annis.' See also Beda Venerabilis, *In Esdram et Nehemiam allegorica expositio*, ed. by Jacques-Paul Migne, Patrologia Latina, 91 (Paris, 1850), cols 807–924, 2:7.

²⁷⁵ Munich, MS Clm. 18769, fol. 41^r: 'qui simul faciunt liiii, et hos liiii annos presignasse putatur angelus Danieli in vii ebdomadibus primae distinctionis'.

²⁷⁶ Munich, MS Clm. 18769, fol. 41^r: 'Est enim una ebdomada viii dies, vii septimanae id est I dies, vii menses, vii anni, et hec ebdomada septies ducta claudit annos annos liiior, menses ii, dies xi.'

of Darius.²⁷⁷ Heimo's reasoning is correct. He first calculates that there were fifty-six days ($7 \times 8 = 56$), next that there were another 350 days ($7 \times 50 = 350$), and then converts the sum of 406 days into one year and forty-one days ($406 = 365 + 41$). As for the months, he arrives at forty-nine ($7 \times 7 = 49$), which he converts to four years and one month ($4 \times 12 + 1 = 49$). For his subtotal Heimo now counts five years, two months and eleven days. Finally, he adds forty-nine years ($7 \times 7 = 49$), which indeed results in a grand total of fifty-four years, two months, and eleven days.

The second block in this period comprised no fewer than sixty-two prophetic weeks. Heimo put the end point in the reign of Herod the Great, during which the Jewish people had no legitimate leader.²⁷⁸ According to Heimo this dark period for the Jewish people was the end point of the sixty-two prophetic weeks, which when converted lasted 479 years, 10 months, and 8 days.²⁷⁹ This period, then, extended from 14 June (luna xxix) in the sixteenth regnal year of Darius to 21 April (luna xix) in the seventh regnal year of Herod.²⁸⁰ Heimo's calculation does not, however, tally: the period of eight days and seven weeks multiplied by sixty-two gives a total of 3596 days or nine years, ten months, and six days. If we add sixty-two times seven months, which is equivalent to 434 months or thirty-six years and two months, then we arrive at a new subtotal of forty-six years and six days. Finally, to this we add a period of 434 years ($62 \times 7 = 434$), so that the grand total comes to 480 years and 6 days. This is almost two months more than Heimo's calculation (479 years, 10 months, and 8 days).

²⁷⁷ Munich, MS Clm. 18769, fol. 41^v: 'Pertingunt autem he vii ebdomades a primo anno Ciri a pridie non. apr. et xxia luna eiusdem diei usque ad xvi annum Darii in xviii kal. iul. et luna eiusdem xxviiiia.'

²⁷⁸ Munich, MS Clm. 18769, fol. 42^v: 'Ex illo tempore [Herodi] Iudei regem nec legitime de tribu Iuda, nec usurpative de alia tribu sua habere potuerunt, sacerdotium vero diminutum et desolatum ac depravatissimum usque ad eversionem ultimam Ierosalem per Titum quoquomodo retinuerunt.'

²⁷⁹ Munich, MS Clm. 18769, fol. 42^v: 'Hanc tam multiplicem et variam ac notabilem Iudaice gentis eventuum et principatum alterationem, angelus Danieli viro desideriorum insinuare volens, postquam dixit "ebdomades vii", id est liiii fere annos in quibus templum cum ornatibus suis reparatum est, subiunxit "et lxx ebdomades erunt", id est cccclxxviii anni et menses x cum diebus octo. Nam sexagies et bis viii et I dies et vii menses et vii anni multiplicati, claudunt annos cccclxxviii, menses x, dies viii.'

²⁸⁰ Munich, MS Clm. 18769, fols 42^v–43^r: 'Pertingunt autem hi cccclxxviiiivem anni et menses x cum diebus viii a xvi anno Darii et ab xviii kal.iul. luna eiusdem diei existente xxviiiia usque ad septimum annum regni Herodes, qui est xviiiis annus regni Octaviani, et usque ad xi kal. mai. luna xviiiia eiusdem diei.'

After adding the seventieth prophetic week of seven years, seven months, seven weeks, and eight days, according to Heimo the total duration was 541 years, 9 months, and 18 days.²⁸¹ This last prophetic week ran then from 21 April (luna xix) in the seventh regnal year of Herod the Great to 18 January (luna xiv) in the fourteenth regnal year of the same Herod.²⁸² Heimo here commits yet another error, however: the sum of the first period of seven prophetic weeks (fifty-four years, two months, and sixteen days), the second period of sixty-two prophetic weeks (479 years, 10 months, and 8 days), and the seventieth and last prophetic week (7 years, 7 months, and 58 days) comes to 541 years, 9 months, and 21 days, three days more than Heimo postulates.

As he had done in Chapter 7, Heimo here adds a special prophetic week of fifty years to this period, one that ended on 19 March (luna ix) in the sixth year of the procurator Pontius Pilate (d. c. AD 39) and in the eighteenth regnal year of Tiberius.²⁸³ Heimo arrives now at a total of 591 years, 11 months, and 15 days.²⁸⁴ A simple sum reveals, however, that Heimo should have arrived at a total of 591 years, 9 months, and 18 days.²⁸⁵

Finally, Heimo makes one last addition of five days and thereby arrives at a total duration of 591 years, 11 months, and 20 days from the end of the Babylonian exile to the day of Christ's Passion, namely 25 March (luna xv).²⁸⁶ Heimo, however, used

²⁸¹ Munich, MS Clm. 18769, fol. 43^r: 'Unde vii et lxii ebdomadibus premissis addenda est septuagesima ebdomada vel anni vii, menses vii, septimane vii, dies viii, et fient simul anni dxli, menses viiii dies xviii.'

²⁸² Munich, MS Clm. 18769, fol. 43^r: 'Pertingunt autem hi vii anni, viiii [corr. vii] menses, xviii dies [corr. viii] dies a vii anno Herodis et ab xi kal. mai. luna eiusdem diei xviii a usque ad xiiii annum Herodis qui est Octaviani Augusti xxiii et usque ad xv kal. feb. et lunam eiusdem diei xiiiiam.'

²⁸³ Munich, MS Clm. 18769, fol. 43^v: 'Nimirum haec ebdomada incepta a xvi [corr. xiv] anno regni Herodis, qui est xxiii imperii Octaviani Augusti, a xiiii kal. feb. lunaque eiusdem diei xva, et finita est vi anno Pontii Pilati presidis Iudeae qui est xviii annus imperii Tiberii cesaris xiiii kal. apr. luna eiusdem diei viiii.'

²⁸⁴ Munich, MS Clm. 18769, fol. 43^v: 'Iunge ergo hanc ebdom Adam superioribus lxx ebdomadis [corr. ebdomadibus] et habebis annis dxi, xi menses, xv dies.'

²⁸⁵ The confusion between 9 (ix) and 11 (xi) points in this case to a possible error in the scribal transmission.

²⁸⁶ Munich, MS Clm. 18769, fols 43^v–44^r: 'Quibus si addideris dimidium ebdomadae, tanto breviores et quanto efficacioris, id est v dies a xiii kal. apr. et a luna xa, viii kal. [apr.] et luna existente xva in prima die azimorum hora diei sexta, occisus et crucifixus est sanctus sanctorum unctus est, et sic interiit ac cessavit completa in Christo Ihesu omnis umbra et promissio legalium et prophetiarum unctionum, finitis lxx ebdomadibus et una ebdomadae et dimidio ebdomadis unius, id est

faulty and non-complementary conversion variables. The conversion of days to years (365 days = 1 year) does not dovetail with the conversion of days to months (30.5 days = 1 month, so 12 months = 366 days). Moreover, Heimo systematically equated seven weeks with fifty days. The failings mentioned above explain the fact that a correct recalculation of seventy prophetic weeks is not identical to the correct sum of the three recalculated periods (7 + 62 + 1).

Table 54

End Babylonian Exile	1st year of Cyrus the Great	4 April (luna xxi)	Weeks	
Completion of the reconstruction of the Temple	16th year of Darius	14 June (luna xix)	7	+ 54 y., 2 m., and 11 d.
Illegitimate rule over Judea	7th year of Herod the Great	21 April (luna xix)	62	+ 479 y., 10 m., and 8 d.
	14th year of Herod the Great	18 January (luna xix)	1	+ 7 y., 7 m., and 58 d.
	18th year of Tiberius	19 March (luna ix)	1	+ 50 y. (= 1 Holy Year)
† Christ	18th year of Tiberius	25 March (luna xv)	1/2	+ 5 d. († Christ = feria vi ^a)
Total			71.5	591 y., 11 m., and 20 d.

In his eleventh chapter Heimo reproduces yet another formula.²⁸⁷ He determines therein the duration of a prophetic week according to the seventh interpretation, namely as a period of eight days, seven weeks of fifty days each, seven months, seven years, and finally one Holy Year of fifty years. After multiplying by seventy, Heimo arrives at a total of 4041 years, 11 months, and 13 days, which agrees with the period between Creation and the establishment of the Roman Church.²⁸⁸ Heimo's calculation contains a narrow margin of error: multiplication

annis dxcī, mensibus xi, diebus xx ab exitu sermonis ut iterum edificetur Ierosalem usque ad passionem Christi Ihesu.'

²⁸⁷ Munich, MS Clm. 18769, fol. 45^v: 'Potest et aliter estimari hoc quod dictum est lxx ebdomades adbrivate sunt super populum tuum et cetera, usque et iungetur sanctus sanctorum. Sit itaque una ebdomadas septuagies multiplicetur hoc modo.'

²⁸⁸ Munich, MS Clm. 18769, fol. 45^v: 'Septuagies lviii dies sunt iiii milia lx, et faciunt xi solares annos et xlv dies. Item septuagies vii menses sunt cccc et xc, et faciunt annos xl et x menses. Item septuagies vii anni sunt cccxc. Qui cum superioribus daciunt annos dxli, menses xi diesque xiii. Item septuagies l anni sunt iiii et cum superioribus iuncti faciunt annos iiii xli, menses xi, dies xiii. Tot annos invenies defluxisse a principio mundi usque ad tempus romane ecclesiae.'

by fifty-eight days results in 4060 days or eleven years, one month, and fifteen days. After adding 490 months or forty years and ten months, this sum increases to 51 years, 11 months, and 15 days. Finally, 490 years ($70 \times 7 = 490$) and 3500 years ($70 \times 50 = 3500$), respectively, must be added in order to arrive at a grand total of 4041 years, 11 months, and 15 days. However, Heimo consistently notes thirteen instead of fifteen days, so that his calculation is off by two days.

Heimo subsequently repeats his results from Book II, namely that the pre-Christian period had lasted 4025 years, which was only seventeen years less than the recalculated seventy prophetic weeks.²⁸⁹ According to this new formula, the end of the Jewish exile took place after fifty-nine prophetic weeks, which agrees with the period of 3432 years, 9 months, and 15 days.²⁹⁰ Heimo found it then appropriate to add the eleven remaining prophetic weeks to this total.²⁹¹ In addition to the twenty-six years already mentioned, Heimo counted another thirty-one years, seven months, and fifty-eight days to complete the sixtieth prophetic week and so to arrive at a new subtotal of 3464 years, 6 months, and 12 days.²⁹² This

²⁸⁹ Munich, MS Clm. 18769, fol. 45^{r-v}: 'Fuerunt enim ut supra collectum est ab origine mundi usque ad dilubium anni mille dclvi, a diluvio usque ad septuagesimum quintum annum Abrahæ anni ccclxvii, inde usque ad regnum David anni dccclxvi, a primo anno David usque ad transmigrationem Iudæ fuerunt anni cccclxxiii. Inde usque ad passionem Domini dclxii anni sunt. Qui omnes simul collecti fiunt anni mxxxv. His si iunxeris xvii annos, implebis lxx ebdomadum annos ab origine mundi usque ad tempus romane ecclesie, iam quadriennio a Petro apostolo fundatæ, id est annos mxxlii, fere ritibus iudaismi iam cessantibus et destructis.' See also Heimo of Bamberg, *Consideratio annorum*, 2:5.

²⁹⁰ Munich, MS Clm. 18769, fol. 45^v: 'Quod si querat quo modo per hanc sententiam Daniel vel tempus dissipationis suæ legis ac gentis cognoscere potuerit respondemus. Optime et planissime collegerat enim in libris Moysi et ceterorum patrum quod anni ab origine mundi usque ad primum annum Ciri Perse defluerant, scilicet mccccxxxiii. Hi clausurant ebdomades liiii, id est annos mccccvi, menses viiii, dies xv et supererant anni xxvi. Quod sic probatur: Quinquagies novies lviii dies sunt mccccxxii qui faciunt annos viiii, menses iiiior, dies xv. Item quinquagies novies vii menses sunt ccccxiii et faciunt annos xxxiiii et menses v. Iunge superioribus et fiunt anni xliii, menses viiii cum diebus xv. Item quinquagies novies vii anni sunt ccccxiii. Item quinquagies novies anni i sunt iidcccl. Qui collecti cum precedentibus fiunt mccccvi anni, viiii menses, xv dies, scilicet spatium lviii ebdomadum. Quibus si adderatur xxvi anni, complentur anni mccccxxxii, menses viiii, dies xv, qui defluerunt ab origine mundi usque ad primum annum Ciri.' From whom Heimo got this information is uncertain.

²⁹¹ Munich, MS Clm. 18769, fol. 45^v: 'Quos cum Daniel ex sacris scripturis notissimos habuisset, sicut vir calculatorie artis peritissimus potuit facile lviii ebdomadibus xi addere, et quod quesivit invenire quam manifestissime hoc modo.'

²⁹² Munich, MS Clm. 18769, fol. 45^v: 'Nam si adderatur superfluis xxvi annis anni xxxius, menses vii, dies lviii complebitur sexagesima ebdomadas, id est mccccxliiii anni, menses vi, dies xii.'

reasoning is sound. At the beginning of this chapter, Heimo established the length of one prophetic week at fifty-seven years, seven months, and fifty-eight days. Because twenty-six years of the sixtieth prophetic week had already elapsed, there remained indeed thirty-one years, seven months, and twenty-eight days. Combined with the previous result (3432 years, 9 months, and 15 days), the new subtotal was 3464 years, 6 months, and 12 days.

Because the last ten prophetic weeks lasted 577 years, 5 months, and 1 day, Heimo also arrived at a grand total of 4041 years, 11 months, and 13 days.²⁹³ This at once explains why Heimo had consciously written thirteen instead of fifteen days at the beginning of this calculation. This is in other words once again clear proof of Heimo's manipulation of the numbers.

To conclude this chapter Heimo maintains that these calculations serve not only to support his earlier corrections, but also to determine the exact length of the seventy prophetic weeks.²⁹⁴ He was very well aware of the thoroughly innovative nature of his calculations, but considered himself more of a witness to God's inspiration than a self-assured innovator.²⁹⁵ He therefore explicitly asks not to be accused of revolutionary impulses or of impetuous prejudice, and emphasizes once again that he is merely the instrument of divine inspiration.²⁹⁶

In the penultimate and relatively short twelfth chapter, Heimo decides, however, to put the recalculations from the preceding two chapters into perspective. There, based on both divine and secular sources, he had reckoned 4025 years from Creation

²⁹³ Munich, MS Clm. 18769, fols 45^v–46^r: 'Quibus iungantur x ebdomades sic. Decies lviii dies sunt dlxxx, id est annus et menses vii diesque unus. Decies vii menses sunt lxx, scilicet anni v, menses x. Iunge superioribus et habebis annos vii, menses v, diem i. Item decies vii anni et decies l anni sunt dlxx anni. Quibus additi precedentes fiunt dlxxvii, menses v, dies unus, et complent x ebdomades. Has iunge cum lx ebdomadibus et colliges lxx ebdomadam annos m̄lxxli, menses xi, dies xiii qui defluerunt a principio mundi usque ad tempus romane ecclesiae.'

²⁹⁴ Munich, MS Clm. 18769, fol. 50^r: 'Haec de ebdomadibus Danieli operosius inserui tum ut non tantum historica sed etiam prophetica adtestatione premissam annorum supputationem roborarem, tum ut simplicioribus earundem ebdomadam obscuritatem explanarem.'

²⁹⁵ Munich, MS Clm. 18769, fol. 50^r: 'Denique hoc quod Domino donante inde audiueram, et tamen in nullo expositorum quem mea parvitas attigerat inveneram, sub terra defodere arguar, sed divinae super nos misericordiae et veritatis stillantis qualiscumque testis inveniar.'

²⁹⁶ Munich, MS Clm. 18769, fol. 50^r: 'Rogo itaque te o lector quicumque haec legere dignaris, ne miho vel novitatis subite vel presumptionis temerariae culpam quasi patriorum terminorum transgressorum inpingas "immo tecum retractes quod unicuique datur manifestatio spiritus ad utilitatem dividendis singulis prout vult". See also 1 Cor. 12. 7.'

to the Passion of Christ.²⁹⁷ Because by so doing he had contradicted a long chronological tradition, Heimo had to deal with the objection that it was impossible to reconcile his chronologically constructed Creation with the chronological specifications of regnal periods.²⁹⁸ Heimo's phrasing reveals that he had indeed been the recipient of criticism. It is therefore likely to consider the rest of this chapter as the reviews of his *editio prior* by Burchard of Michelsberg and Dudo of Bamberg.

Firstly, Heimo's Creation started on either 18 March or 21 March (luna xiv), whereas the end point of the regnal periods of innumerable judges and kings from the fifth *aetas* were unknown.²⁹⁹ Moreover, Adam was created on 21 March, and it was very unlikely that he had begotten Seth on precisely the same date.³⁰⁰ Thirdly, Moses had led the people of Israel out of Egypt on Thursday 29 March, and it was just as unlikely that he had died on precisely the same date.³⁰¹ And did Joshua and all of his successors begin their reigns over Israel on the very same dates as the judges and kings?³⁰² With the Roman rulers, at least, it had already been determined that they did not all begin their reigns on 22 April, the day on which Rome was founded.³⁰³ The same was true for other peoples.³⁰⁴ How were all of these variables to be taken into account, especially now that it appeared that there

²⁹⁷ Munich, MS Clm. 18769, fol. 50^r: 'Et divini canonis auctoritate, et secularis cronographiae contestatione mutuo sibi consonantibus annos $\text{iiii} \times \text{xxv}$ ab initio seculi usque ad passionem Domini comprehendimus.'

²⁹⁸ Munich, MS Clm. 18769, fol. 50^r: 'et ii a quibusdam cronographis interrupti ac diminuti sint ut reor ostendimus. Sed opponitur nobis non posse esse ut unquam vere concordentur anni seculi, qui ciclorum ratione estimantur, et anni paterni vel principum, qui cronica annotatione subputantur.'

²⁹⁹ Munich, MS Clm. 18769, fol. 50^r: 'Omnes enim anni seculi si secundum solem confidenter equales sunt et xv vel xii kal. apr. incipiuntur et finiuntur. Aut si secundum lunam computatur, in xiiii luna aprilis inchoantur et terminantur. Anni vero paterni vel principum iudicum et regum per quos quinque aetatum mundi decursus destinguntur, sicut non eisdem quantitibus sic et non eisdem finibus clauduntur.' See also Heimo of Bamberg, *Consideratio annorum*, 1:1.

³⁰⁰ Munich, MS Clm. 18769, fol. 50^r: 'Verbi gratia. Adam primus homo xii kal. apr. factus esse creditur, qui genuit Seth. Sed numquid genuit eum in eisdem xii kal. apr. in quibus ipse est factus?'

³⁰¹ Munich, MS Clm. 18769, fol. 50^v: 'Item Moyses xiiii luna secundum Hebreos iiii kal. apr. in feria quinta ut conicitur eduxit Israel de Egypto. Sed numquid post xl annos quibus Israel moratus est in deserto, in eisdem diebus mortuus est?'

³⁰² Munich, MS Clm. 18769, fol. 50^r: 'Aut Iosue et omnes successores eius iudices vel reges vel sacerdotes susceperunt primatum Israel in eisdem diebus?'

³⁰³ Munich, MS Clm. 18769, fol. 50^v: 'Similiter anni ab urbe condita in x kal. mai. mutantur ut ferunt historiae, anni vero Romanorum principum variantur per eventum diversitate.'

³⁰⁴ Munich, MS Clm. 18769, fol. 50^v: 'Idem de annis ceterarum gentium sentiendum est.'

was uncertainty concerning the first day of Creation, the date of Rome's foundation and the dating of the first Olympiad?³⁰⁵ One last, not unimportant objection was that Moses had measured the course of time by successive generations, while later on this would be done using regnal periods.³⁰⁶

Ultimately, in the thirteenth and final chapter of this third book, Heimo provides detailed responses to the objections formulated above. He recognized full well the important distinction between the fixed course of Creation eras (chronology) and the variable regnal periods in historiographical sources (chronography).³⁰⁷ On the other hand he did not regard this difference as insurmountable, and in his view one system of dating should not be used to undermine the validity of the other.³⁰⁸ Moreover, Moses had recorded everything that had been revealed to him through God's inspiration.³⁰⁹ He had therefore organized the years from Creation up to his own day in such a way that both the stable chronological Creation era and the variable chronographical duration of the various *aetates* remained correct.³¹⁰ In other words, in Heimo's view it was not an insurmountable problem that the Creation era annually began on 21 March (luna xiv), whereas human activities were organized into successive generations.³¹¹ He saw a practical solution to this

³⁰⁵ Munich, MS Clm. 18769, fol. 50^v: 'Quis ergo de tanta diversitate et eversione se expedire poterit, precipue cum etiam ipse dies nascentis seculi incertus sit ut taceamus de primordiali conditione urbis Romae et olimpiadis primae?'

³⁰⁶ Munich, MS Clm. 18769, fol. 50^v: 'Sed et hoc non nihil questionis apportat, quod Moyses per successiones generationum computat decursum temporum, alii vero post ipsum per annos principum.'

³⁰⁷ Munich, MS Clm. 18769, fol. 50^v: 'Taliter satis rationabiliter opponentibus sciendum est, quia licet anni seculi naturaliter computati et certis finibus limitati, numquam vel vix unquam cum annis hominum secularium principum, qui incertis et dissimilibus terminis clauduntur, possint omnino concordari.'

³⁰⁸ Munich, MS Clm. 18769, fol. 50^v: 'non tamen idcirco cronografia vel divina ab aliquibus quasi incerta debet incestari, vel secularis a sanctis doctoribus divinae admixta, ut falsa reprobari.'

³⁰⁹ Munich, MS Clm. 18769, fol. 50^v: 'Nichil enim Moyses vir cum quo Deus sicut cum amico suo locutus est, scripsit nisi quod a spiritu Dei didicit.' See also Exod. 33. 11.

³¹⁰ Munich, MS Clm. 18769, fol. 50^v: 'Inspiratus ergo a Deo ab ipso mundi promordio inter cetera cronografiam usque ad suum tempus contexuit, sic, ut et annis suam certitudinem servaret, et annis humanarum etatum suam quantitatem non derogaret, et utriusque certum numerum assignaret. Nam per annorum numerum hominum insinuavit numerum annorum seculi, per certitudinem annorum seculi cohibuit evagantem incertitudinem annorum hominum hoc modo.'

³¹¹ Munich, MS Clm. 18769, fol. 51^r: 'Neque enim hoc ullomodo confundit computationem, quod anni seculi in xiiiiis lunis semper secundum primam Creationem inchoati sunt, et anni

problem: if the new generation was born in the second half of any given year in the life of their father, then this year was attributed to that father.³¹² In the other case this year was attributed to the new generation.³¹³ By way of explanation Heimo provides two concrete examples: when Adam begets Seth just nine months from his 130th incarnation day, then this year constitutes the last year of Adam's generation.³¹⁴ But when Seth begets Enos within three or four month of his 106th birthday, then that year is considered to be the first year of Enos's generation.³¹⁵ According to Heimo every possible confusion could be avoided by the use of this practical rule of thumb.³¹⁶

Nor did Heimo see any appreciable problems for the period after Moses. Just like Moses, the holy prophets were led by divine inspiration, and therefore they faithfully continued to count the years of Creation until the Babylonian exile.³¹⁷ The only difference with Moses consisted in their no longer counting in generations, but rather according to the years of the then judges who governed the people of Israel without a trace of pride or tyranny.³¹⁸ After these judges there followed a period of predominately bad kings and foreign rulers, but ultimately here, too, the

humanarum generationum per diversa loca annalis mutabantur secundum sortem et eventum generationis singulorum.'

³¹² Munich, MS Clm. 18769, fol. 51^v: 'Quippe si aliquis natus est in mense vii vel viii et deinceps usque ad finem anni, ille annus ascriptus est genitori.'

³¹³ Munich, MS Clm. 18769, fol. 51^v: 'Si quis in primo mense vel secundo mense, et deinceps usque ad medium anni, ille annus annumeratus est annis geniti.'

³¹⁴ Munich, MS Clm. 18769, fol. 51^v: 'Ut si forte Adam in cxxx etatis suae anno in viiii mense eiusdem anni genuit Seth, ille annus permansit quasi ultimus in annis Adae.'

³¹⁵ Munich, MS Clm. 18769, fols 51^v–52^r: 'At si Seth in centesimo vi vitae suae anno in tercio vel quarto mense eiusdem anni genuit Enos, ille annus non generati Seth, sed generato Enos primus assignatus est.'

³¹⁶ Munich, MS Clm. 18769, fol. 52^r: 'et sic omnis subputationis confusio exlusa est'.

³¹⁷ Munich, MS Clm. 18769, fol. 52^r: 'Quia vero post Moysen sacri canonis et temporum digestionis auctores fuerint ignoramus, hoc tamen constat, quia et sancti prophetae fuerunt et secundum veritatem decursum seculi per sua tempora distinxerunt usque ad transmigrationem Iude in Babilonem scruentes prope eundem modum et eandem causam, quibus et ipse Moyses innisus est spiritus Dei docente.'

³¹⁸ Munich, MS Clm. 18769, fol. 52^{r-v}: 'nisi quod ille per annos generationum, isti descendunt per annos iudicatum vel regnorum principum populi Dei, contissimam et pulcherrimam huius rei rationem habentes. Etenim a principio seculi usque ad Moysen nullus in populi Dei se pretulit ceteris ullo fastu vel tirannide, sed erant tantum qui quaedam capita sint ad herentium membrorum.'

natural order of time was correctly calculated and passed down.³¹⁹ Furthermore, according to Heimo it was sufficiently well known that the people of Israel had spent seventy years in exile.³²⁰

Finally, the seventy prophetic weeks from the book of Daniel demonstrated that the next period up to the Passion of Christ lasted nearly 592 years.³²¹ Some Church Fathers had demonstrated this unstated duration of the seventy prophetic weeks based on Persian, Alexandrian, and Roman regnal years.³²² Like Moses himself, his successors had also used integral dates and only very rarely gave a more precise indication of time.³²³ The habit of failing to use precise measurements of time was later adopted by Assyrian, Sicyonian, and Egyptian chroniclers.³²⁴ According to Heimo the latter proved that the secular sources were indeed based on the same temporal order as that of the chosen Jewish people.³²⁵ Consequently any

³¹⁹ Munich, MS Clm. 18769, fol. 52^v: 'Post Moysen autem secuti iudices ipsi quoque non ambitiose et superbe, sed divinitus iusti modeste iudicantes populum Dei eripuerunt ad iripientibus eum alienigenis usque ad Samuelem, post quem quasi nolente Domino subinteruerunt reges, quorum pauci, scilicet David, Salemon, Asa, Iosaphat, Ezechias, Iosias bene rexerunt populum Dei ceteri omnes potestate sua abutentens facti sunt incorruptelam et seductionem subiectis suis, et pariter cum illis interductionem et Sibilum aliegenis. Congruum ergo fuit ut sicut prima tempora per capita naturalis aequabilitatis et humilitatis ac modestiae ad laudem eorum computata sunt per generationes, sic subsequencia tempora innotescerent per spatia principum iusticiae naturalis inversorum addedecus ipsorum.'

³²⁰ Munich, MS Clm. 18769, fol. 52^v: 'Deinde lxx anni Hebeae captivitatis in Babylone antequam venirent ab Ieremia propheta comprehensi sunt.'

³²¹ Munich, MS Clm. 18769, fol. 52^v: 'Denique anni post resolutionem captivitatis Hebraeae usque ad xiiiiia vel xva lunam passionis Christi, in prophetis ebdomadibus Danielis integerrime collecti sunt, fere dxcii.'

³²² Munich, MS Clm. 18769, fol. 52^v: 'Sed quod prophetica verba non plane omnibus eluxerunt, sancti patres eosdem dxcii annos in annis regum Persarum et Alexandrinorum ac Romanorum evidentissime explanaverunt.' Presumably Heimo is referring here to the chronicle of Eusebius and Jerome.

³²³ Munich, MS Clm. 18769, fol. 52^v: 'Et sicut Moyses omnes partes anni, scilicet menses, ebdomades, dies, in computatione sua prorsus pretermisit, sic successores eius canonici scriptores minutias nullomodo respexerunt, nisi forte quantum pro aliqua ingruente magna necessitate suscepti negotii, in supremo fine calculationis suae, eas alicubi innuerunt.'

³²⁴ Munich, MS Clm. 18769, fol. 52^v: 'In hoc quo modo pretermittendi minutias, etiam ethnici divinos scriptores imitati sunt, in designatione annorum regum Assiriorum, Sicioniorum, Egyptiorum et aliorum quorumlibet regnorum.'

³²⁵ Munich, MS Clm. 18769, fol. 52^v: 'Unde idem temperamentum quod est annorum principum populi Dei, sit et annorum secularium principum ad annos seculi.'

contradictions in the sources could only be logically explained as the work of fallible scribes.³²⁶

Via this path Heimo had arrived at the end point of the pre-Christian period, namely the Passion of Christ on Friday 25 March (luna xv).³²⁷ Moreover it tallied perfectly from a chronological perspective that 4025 years before, the moon had indeed been created as a full moon on 21 March.³²⁸ With these chronological data concerning Christ's Passion, the day of the week of any given date could be calculated via a twenty-eight-year solar cycle.³²⁹ Because the year of Christ's Passion was likewise the fourth year of the 202nd Olympiad (202/4) and the 786th since the founding of Rome (786 AUC), one could also calculate under which Jewish ruler the very first Olympiad began, and under which Jewish ruler Romulus had founded the city of Rome on 22 April.³³⁰ This unbreakable and correct timeline from Creation to Christ's Passion could not only be used going forwards, but backwards, as well.³³¹ With this Heimo concludes the third book of his chronicle.³³²

Liber quartus: De annis sexte etatis seculi

In the fourth book of his chronicle Heimo delves into the sixth and final *aetas*. At the beginning of his first chapter he immediately and clearly states that the

³²⁶ Munich, MS Clm. 18769, fol. 52^v: 'Quorum tamen distincta dinumeratio non ideo in divina cronographia admittitur ut quasi verissima recipiatur, sed fides eius penes scriptores sit, sola vero auctoritas et certitudo veritatis in divino canone consistit, nisi forte vitiorum scriptorum librarum alicubi irreperit, et sic verum turbaverit.'

³²⁷ Munich, MS Clm. 18769, fols 52^v–53^r: 'Passus est autem Christi Ihesus contestantibus evangelistis et sanctis patribus xva luna primi mensis viii kal. Apr.'

³²⁸ Munich, MS Clm. 18769, fols 52^v–53^r: 'Ab hac ergo die videlicet xva luna primi mensis et viii kal. apr. ascendat calculator retrogradus per tot annos naturales, quod anni collecti sunt in designationibus patrum, scilicet mxcxv , et profecto inveniet in inicio seculi lunam mox creatam plenam apparuisse in ea die anni, quam nos modo dicimus xii kal. apr.'

³²⁹ Munich, MS Clm. 18769, fol. 53^r: 'Quod si feriam quo querit, inveniat eam per feriam dominicae passionis, ratione solaris cicli.'

³³⁰ Munich, MS Clm. 18769, fol. 53^r: 'Similiter per annum dominicae passionis qui fuit ducentisimae secundae olimpiadis quartus annus et ab urbe condita dcclxxxvii retrograda computatione invenitur sub quo principe populi Dei prima olimpias ceperit, et nichilominus sub quo primum urbs Rome in x kal. mai. a Romulo condita fuerit, quin et feria earundem x kal. mai., scilicet dies Iovis qui Iupiter deus regnorum esse a paganis est creditur, inveniri poterit.' See also Heimo of Bamberg, *Consideratio annorum*, 2:2.

³³¹ Munich, MS Clm. 18769, fol. 53^r: 'Unde et nos superius supputationes nostras non semper antegrade sed retrograde disposuimus.'

³³² Munich, MS Clm. 18769, fol. 53^r: 'His ita tandem expeditis, tercius liber finiatur.'

Christian period did not begin with Christ's Birth, but rather with His Passion.³³³ He observes moreover that according to a chronological reckoning 1134 years had already elapsed in this sixth *aetas*.³³⁴ From the Jewish luna xv on 25 March in the year of Christ's Passion (1 VA) to the Jewish luna xv on 1 April in the then *annus praesens* (1135 VA) two 532-year luni-solar cycles and seventy-one years had elapsed ($1064 + 71 = 1135$).³³⁵ Heimo saw this number of 1135 years confirmed in the obituary data of important saints.³³⁶ The first saint he mentions is Martin of Tours (d. 397), who according to the annals died on Sunday 11 November in the 367th year of Christ's Passion during the consulate of Archadius and Honorius.³³⁷ Almost a century and a half later Benedict of Nursia died on Easter Saturday, 21 April.³³⁸ This year thus logically had epact 15 and concurrent 3, which on an Easter table did indeed occur exactly 142 years later than Martin's death with epact 6 and concurrent 7 ($367 \text{ VA} + 142 = 509 \text{ VA}$).³³⁹ Next Heimo dates the death of Pope Gregory I another ninety-six years later ($509 \text{ VA} + 96 = 605 \text{ VA}$), namely in

³³³ Munich, MS Clm. 18769, fol. 53^r: 'Restat ut etiam consideremus annos sexte seculi, a passione domini usque ad nos transactae.'

³³⁴ Munich, MS Clm. 18769, fol. 53^{r-v}: 'Qui quidem sicut superius quoque dictum est fixa et incommutabili ciclorum rationem probantur esse mcxxxiiii et quintus iam instat.'

³³⁵ Munich, MS Clm. 18769, fol. 53^{r-v}: 'Etenim a secundum iudeos xva luna primi mensis qua Christus viii kal. apr. passus est, usque ad xvam lunam quae secundum Iudeos in hoc anno occurrebat in kal. apr. et fuit eorum dies paschalis, id est prima azimorum, transierunt duo magni paschales cicli, id est mille lxxxx anni et insuper lxxi qui simul iuncti fiunt mille cxxxiiii et quintus iam instat.' In AD 1135 the paschal term (luna xiv) or the Jewish luna xv fell indeed on 1 April.

³³⁶ Munich, MS Clm. 18769, fol. 53^r: 'Idem quoque numerus annorum potest per partes colligi in transitibus quorundam sanctorum.'

³³⁷ Munich, MS Clm. 18769, fol. 53^r: 'Legitur quippe in vita sancti Martini quod transierit de hoc mundo a passione Domini ccclxvii sub Archadio and Honorio die dominica iii id. nov. sicut annotatum est in omnibus annalibus nostris.' See also Gregory of Tours, *Historia Francorum*, 1:43. According to the Carolingian calendar Martin of Tours was indeed commemorated on 11 November: Borst, *Der karolingische Reichskalender*, III, 1485.

³³⁸ Munich, MS Clm. 18769, fol. 53^r: 'Et sanctus Benedictus abbas Cassinensis transiit de hoc mundo in vigilia paschae sicut legitur in vita sancti Mauri abbatis xii kal. apr. sicut legitur in dialogo sancti Gregorii papae.' See also Odo of Glanfeuil, *Vita sancti Mauri*, ch. 5.

³³⁹ Munich, MS Clm. 18769, fol. 53^r: 'anno post transitum sancti Martini cxlii sicut potest colligi per epactas vi et concurrentes vii, qui fuerunt anno Domini ccclxvii quando transiit sanctus Martinus et per epactas xv et concurrentes iii qui fuerunt eo anno quo transiit sanctus Benedictus, temporibus Iustini senioris'.

the second regnal year of Emperor Phocas (d. 610) with indiction 8.³⁴⁰ Finally he counts 530 years from Gregory's death up to and including the then *annus praesens* (605 VA + 530 = 1135 VA) with indiction 13.³⁴¹ There was thus indeed a total of 1135 years reckoned from Christ's Passion (1 VA) up to and including the then *annus praesens* (1135 VA).³⁴²

Table 55

VA	Important obituary data	Chronological parameters	Source
1 VA	† Christ	epact=11 and concurrent=5	Latin tradition
367 VA	† Martin of Tours	epact=6 and concurrent=7	Kalendarium
509 VA	† Benedict	epact=15 and concurrent=3	<i>Vita sancti Mauri</i>
605 VA	† Gregory I	indiction 8	Bede, <i>De temporum</i> , ch. 66
1135 VA	<i>annus praesens</i>	indiction 13	

But whoever decided to calculate this period according to the Dionysian era encountered a chronological problem because in that case only 1101 years were counted from Christ's Passion (AD 34) to the then *annus praesens* (1135).³⁴³ As Heimo had already demonstrated in his *Computus*, such a breach of the Catholic faith could easily be avoided by starting the era at Christ's Passion.³⁴⁴ Because

³⁴⁰ Munich, MS Clm. 18769, fol. 53^v: 'A transitu vero sancti Benedicti usque ad transitum sancti Gregorii papae numerantur anni xcvi. Transit quippe anno Domini dcv indictione viiia anno secundo Focae imperatoris.' Heimo derived this information from the anonymous *Chronicon Wirzburgense*, ed. by Georg Waitz, *Monumenta Germaniae Historica, Scriptores*, 6 (Stuttgart, 1968), pp. 17–32 (p. 24). He probably used Karlsruhe, MS 504, fols 171^r–186^v: Hartmut Hoffmann, *Bamberger Handschriften des 10. und 11. Jahrhunderts*, *Monumenta Germaniae Historica, Schriften*, 39 (Hannover, 1995), p. 179.

³⁴¹ Munich, MS Clm. 18769, fol. 53^v: 'Denique a transitu sancti Gregorii papae usque ad haec presentem annum Domini millesimum centesimum [tricesimum] quintum, habentem indictiones xiii, numerantur anni dxxx.'

³⁴² Munich, MS Clm. 18769, fol. 53^v: 'Collecti igitur simul ccclxvii et cxlii et xcvi et dxxx, fiunt a passione Domini usque ad nos anni mcxxxiiiior et quintus iam instat.' The sum of these numbers is 1135 because Heimo reckoned the difference between Christ's Passion (1 VA) and the death of Martin (367 VA) at 367 instead of 366 years.

³⁴³ Munich, MS Clm. 18769, fol. 53^v: 'Verumtamen hoc mille cxxxv annos omnis fere moderni cronografi numerant a nativitate Domini et a passione eius usque ad nos mille centum et unum annos, nec animadvertunt se per hoc plura incurrere inconvenientia.'

³⁴⁴ Munich, MS Clm. 18769, fol. 53^v: 'sic in compoto nostro in explanatione cycli paschalis Dionisii ostendimus, quae omnino repudiat *fides catholica* et quae omnia prorsus caventur si predicti mcxxxv anni Domini ab eius passione inchoentur'. This conversion from an Incarnation

thirty-three years had been lost over the course of the centuries, Heimo took it upon himself to investigate from a chronographical perspective where and why these years had disappeared from the chronicles.³⁴⁵ Contrary to the pre-Christian period, he could not make use of the historical books of the Old Testament.³⁴⁶ He must now rather rely on pagan chronicles and hagiographical sources.³⁴⁷ He would bridge the remaining gaps with the help of chronological tables.³⁴⁸

Heimo labelled every year according to a fourfold dating, namely from the founding of Rome (AUC), in Olympiads, from Christ's Passion (VA), and finally in regnal years.³⁴⁹ In this way he could dispose of doubts about one system by reference to one or more of the other, more reliable ones.³⁵⁰ The difference between the first two dates (AUC and Olympiads) was a consistent twenty-two years, but the process of harmonization between the other two dates (Christian reckoning and regnal years) proved to be a much more difficult task.³⁵¹

In the second chapter Heimo calculates the number of years from the eighteenth regnal year of Tiberius (AD 34) to the brief reign of the last Roman emperor Augustulus (476). He repeats in this context the fact that Christ died on Friday

era to a Passion era does not appear in the Bamberg *Computus*, which once again proves that this tract may not be attributed to Heimo himself.

³⁴⁵ Munich, MS Clm. 18769, fols 53–54^r: 'Sed quoniam tunc xxxiii anni nobis desunt in modernis cronicis, cronica supputatione exploremus ubi et qua occasione eos a cronografis interceptos esse putemus.'

³⁴⁶ Munich, MS Clm. 18769, fol. 54^r: 'Et quoniam in enumeratione annorum novi testamenti non habemus libros in canonem receptos, sicut habuimus in supputatione annorum veteris testamenti.'

³⁴⁷ Munich, MS Clm. 18769, fol. 54^r: 'oportet nos sequi partim seculares scriptores, scilicet historiam romanorum, partim etiam designationes agiograforum catholicorum, in quantum eas et sibi et nobis concordare et competere videmus'.

³⁴⁸ Munich, MS Clm. 18769, fol. 54^r: 'Sic ubi vero dissident et deficiunt, ciclorum fixis rationibus innitemur et sic Domino adiuvante expediemur.'

³⁴⁹ Munich, MS Clm. 18769, fol. 54^r: 'Porro ut supputatio nostra probabilior et certior fiat, quadripartita annorum collatione eam decurrere volumus, scilicet ut sint in primis anni ab urbe condita, deinde anni olimpiadum, in tercio loco anni a passione Domini, in quarto loco anni principum.'

³⁵⁰ Munich, MS Clm. 18769, fol. 54^r: 'quatenus his simul decurrentibus vicissim inter se probari et concordari possint, sic ubi dubitatio aliqua de his irrepserit'.

³⁵¹ Munich, MS Clm. 18769, fol. 54^r: 'Annis ab urbe condita prepone xxii et habebis annos olimpiadum. Econtra annis olimpiadum deme xxii et remanent anni ab urbe condita. Anni Domini et anni principum fere pares sunt, quia fere pariter procurrunt hoc modo.'

25 March (luna xiv) in the eighteenth regnal year of Emperor Tiberius, in the 786th year since the founding of Rome (786 AUC), and in the fourth year of the 202nd Olympiad (202/4).³⁵² After a long enumeration of 443 years, Heimo finally arrives at the fall of the Roman Empire under Augustulus, more specifically in the 1229th year since the founding of Rome (1229 AUC), in the third year of the 313th Olympiad (313/3), in the 477th year of Christ's Birth, and in the 444th year of His Passion.³⁵³

Table 56

<i>° Christ</i>	<i>† Christ</i>	<i>AUC</i>	<i>Olymp.</i>	<i>Regnal years</i>
AD 34	1 VA	786 AUC	202/4	Tiberius 18
AD 477	444 VA	1229 AUC	313/3	Deposition of Augustulus

Until the end of the Roman Empire Heimo found no reason to doubt the veracity of the Roman and Greek sources.³⁵⁴ The reckoning from the founding of Rome and the Olympiadic reckoning had up to that point coincided smoothly with the Christian reckoning and the accompanying regnal years.³⁵⁵

³⁵² Munich, MS Clm. 18769, fol. 54^r: 'Anno ab urbe condita dclclxxxvi, olimpiadis ducentesimo secunde quarto anno in xviii anno Tiberii cesaris passus est Dominus noster Ihesus Christus viii kal. apr. feria via, luna secundum Iudeos xva, sed secundum Latinos et Grecos xiiiia et resurrexit vi kal. apr. prima sabbatorum quam Christiani dicunt dominicam, luna secundum Iudeos xviiia, secundum Latinos et Grecos xviiia, indictione iiiiia, epactis xia, concurrentibus v, proximo anno post bissextum.' See also Heimo of Bamberg, *Consideratio annorum*, 2:2.

³⁵³ Munich, MS Clm. 18769, fol. 58^r: 'Ita romanum imperium toto orbe venerandum et augustalis illa sublimitas que ab Augusto Octaviano cepit, cum hoc Augustulo perii anno urbis condita mcccxxviii, olimpiadis cccxiii tercio anno, ab ultimo anno Gaii Iulii Cesaris dxviii, a nativitate Christi cccclxxvii, sed a passione eius cccclxiii.' See also Paul the Deacon, *Historia romana*, 15:10. Paul the Deacon refers, however, to 1209 AUC (instead of 1229 AUC) and to the 517th year after Julius Caesar (instead of the 518th year). In Bamberg, Staatsbibliothek, MS Hist.6.II (s. IX/X), the original number 1209 (mccviii) has indeed been altered by a later hand to 1229 (mcccxxviii): Paul the Deacon, *Historiae Romanae libri XI–XVI*, p. 211, apparatus.

³⁵⁴ Munich, MS Clm. 18769, fols 58^r–59^r: 'Hactenus, id est usque ad primum annum regni Ogdoacris qui est secundus annus Zenonis, cronographi Latini per annos ab urbe condita sicut Graeci per olimpiades tempora regnum et eventuum designaverunt.'

³⁵⁵ Munich, MS Clm. 18769, fol. 59^r: 'Quos quanto diligentius potuimus nos quoque secuti sumus, ut sic triplici testimonio scilicet per annos olimpiadum et urbis condite et principum eius seriem annorum Domini assignatam comprobaremus, atque evidentius nobis libertatis Christi innotesceret et constaret nostre redemptionis tempus.'

In his third chapter he attributes sixteen regnal years to Zeno (d. 491) and twenty-seven years and two months to Anastasius (d. 518).³⁵⁶ Subsequently Heimo encounters a problem in the reign of Justin I (518–27). Some authors had written that his reign lasted eight years, while others spoke of a reign of eleven years.³⁵⁷ Moreover, Heimo read in the *Vita sancti Mauri* that Benedict had lived during the reign of this emperor and died on Easter Saturday, 21 March.³⁵⁸ He therefore logically thought that only the year 509 VA was a valid one for the date of Benedict's death, for in that year Easter Sunday fell on 22 March (luna xv).³⁵⁹

The question remained, however, under which emperor Benedict had died.³⁶⁰ Some chroniclers were of the opinion that Benedict had died under Justin I; others dated this event in the time of his successor, Justinian I (d. 565).³⁶¹ To have Benedict die under Justin would conflict with the chronology that Heimo had held to without problem up to that point.³⁶² Depending on the duration of his reign (eight or eleven years), he counted either 493 or 496 years from Christ's Passion to the last regnal year of Justin.³⁶³ Consequently fifteen or twelve years, respectively, had

³⁵⁶ Munich, MS Clm. 18769, fol. 59r: 'Mortuo Zenone postquam xvi annos regnaverat, Anastasius suscepit orientale imperium et regnavit annis xxvii menses ii.'

³⁵⁷ Munich, MS Clm. 18769, fol. 59r: 'Mortuo Anastasio successit ei Justinus genere Illiricus vir per omnia catholicus, et regnavit tantum octos annis ut quidam scribunt, alii vero putant eum xi annis imperasse.' Heimo points here to the difference between Beda Venerabilis (eight years) and Paul the Deacon (eleven years). See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 4480), and Paul the Deacon, *Historia romana*, 16:11.

³⁵⁸ Munich, MS Clm. 18769, fol. 59r: 'Eo tempore claruit miraculis sanctus Benedictus abbas Cassinensis. Hic sicut legitur in vita sancti Mauri discipuli eius migravit ad Dominum in vigilia paschae xii kal. apr., sicut legitur in dialogo Gregorii papae.' See also Odo of Glanfeuil, *Vita sancti Mauri*, ch. 1 and ch. 5.

³⁵⁹ Munich, MS Clm. 18769, fol. 59r: 'Quot vero annus a passione Domini huius migrationis fuerit si queritur, profecto dviiiis ratione cicli pascali invenitur.'

³⁶⁰ Munich, MS Clm. 18769, fol. 59v: 'Verum sub quo principe migravit ambigitur.'

³⁶¹ Munich, MS Clm. 18769, fol. 59v: 'Alii quippe estimant cum obisse sub Iustino seniore, alii sub Iustiniano eius successore.' Once again Heimo here underscores the difference between Bede (Justin I) and Paul the Deacon (Justinian I). See also Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 4480), and Paul the Deacon, *Historia romana*, 16:20–23.

³⁶² Munich, MS Clm. 18769, fol. 59v: 'Sed quod sub Iustino obieret, subputatio annorum principum romanorum quam iam fecimus repugnat.'

³⁶³ Munich, MS Clm. 18769, fol. 59v: 'Colliguntur enim a passione Domini usque ad ultimum annum Iustini, si viii tantum annis regnavit, cccxciii anni, aut si xi regnavit cccxcvi fiunt.' In the previous chapter Heimo had counted 443 years from Christ's Passion to the deposition of

to be supplied in order to arrive at the proposed date of Benedict's death (509 VA).³⁶⁴ The theory that Benedict had died during the reign of Emperor Justinian I offered just as little comfort.³⁶⁵ Heimo counted just 609 years from the then *annus praesens* (1135 VA) to the first regnal year of Justinian (527 VA).³⁶⁶

In a fourth chapter Heimo proves this latter hypothesis by counting carefully backwards from the ninth regnal year of the then Emperor Lotharius III (1135 VA).³⁶⁷ He counts a total of 609 years back to the first regnal year of Justinian I (527 VA), which was eighteen years too little to arrive at the date of Benedict's death (509 VA).³⁶⁸ The conclusion of a surprised Heimo is then that Benedict had not died during the reigns of Justin I or Justinian I, for in neither of their reigns does Easter Saturday fall on 21 March.³⁶⁹

In the final and important fifth chapter of this fourth book Heimo formulates a hypothesis for where and how the thirty-three years had disappeared from the chronicles. On the one hand he had already established in Chapter 3 that fifteen years were missing from Justin's last regnal year to the year of Benedict's death, and on the other in Chapter 4 he had calculated that eighteen years were missing from

Augustulus, which coincided with the second regnal year of Zeno (d. 491). Together with the remaining years of Zeno's reign (fifteen) and the entire period of Anastasius's reign (twenty-seven), Heimo was indeed able to arrive at 493 or 496 years before Justin's last regnal year.

³⁶⁴ Munich, MS Clm. 18769, fol. 59^v: 'et quoniam xv vel xii anni desunt ad transitum sancti Benedicti non pertingunt'.

³⁶⁵ Munich, MS Clm. 18769, fol. 59^v: 'Sed nec sub Iustiniano transiit.'

³⁶⁶ Munich, MS Clm. 18769, fol. 59^v: 'Etenim si ab hoc instanti anno qui est annus Domini mcxxxv retrograde usque ad primum annum imperii magni Iustiniani reputes non plus quam dcviii annos invenies hoc modo.' In order to ensure in this reverse reckoning that the death of Benedict would fall within the reign of Justinian I, Heimo had to count at least 626 years (1135 VA - 626 = 509 VA).

³⁶⁷ Munich, MS Clm. 18769, fol. 59^v: 'Ab anno Domini mcxxvii indictione va Lotharius tercius rex Francorum imperator Romanorum regnavit viii annis usque in annum Domini presentem millesimum cxxxvum indictione xiiia, cum hoc opus incipium scribendi fecimus.'

³⁶⁸ Munich, MS Clm. 18769, fol. 62^r: 'Recollecti ergo omnes anni ab hoc instanti anno Domini qui est mcxxxv indictione xiiia usque ad primum annum Iustiniani magni, inveniuntur tantum dcviii, nec ullo ullo modo ad transitum sancti Benedicti pertingunt quoniam xviii anni desunt.' The ninth regnal year of Lotharius III (1135 VA) is already the first year of Heimo's reverse reckoning. Consequently 527 VA does indeed constitute the 609th year in this reckoning.

³⁶⁹ Munich, MS Clm. 18769, fol. 62^r: 'Miror itaque quare cronografi nostri transitum sancti Benedicti temporibus vel Iustini senioris vel Iustiniani eius successoris attulaverint cum in neutrius temporibus sabbatum sanctum pascae, in quo ille beatus vir transivit, xii kal. apr. occurrisset uspiam ostenderint aut ostendere potuerint.'

Justinian's first regnal year to the year of Benedict's death.³⁷⁰ The combination of both calculations logically produced the result that thirty-three years were missing between the last regnal year of Justin and the first regnal year of Justinian.³⁷¹ At this point Heimo offers as an aside that only thirty years were missing if he attributed to Justin a reign of eleven instead of eight years.³⁷²

As he had done at the outset of Chapter 3, Heimo next maintains that the different systems of dating are in harmony for the period from Christ's Passion to the reign of Emperor Zeno.³⁷³ He demonstrates this by means of a number of examples. He thus dates the beginning of Honorius's and Archadius's reign to the 1149th year since the founding of Rome (1149 AUC) and to the fourth year of the 293rd Olympiad (293/4).³⁷⁴ In the second year of their reign Saint Martin of Tours died, more specifically in the 367th of Christ's Passion.³⁷⁵ As a second example Heimo refers to the fall of the Western Roman Empire, namely in the 1229th year since the founding of Rome (1229 AUC), in the 518th year since Julius Caesar, and in the 477th year since Christ's Birth (AD 477).³⁷⁶ In Heimo's view both examples

³⁷⁰ Munich, MS Clm. 18769, fol. 62r: 'Iungantur autem xv anni qui priori supputationi defuerunt usque ad transitum sancti Benedicti, et xviii qui usque ad eundem terminum defuerunt posteriori supputationi.'

³⁷¹ Munich, MS Clm. 18769, fol. 62r: 'et fiunt xxxiii anni qui desunt nobis inter ultimum annum Iustini et inter primum Iustiniani.'

³⁷² Munich, MS Clm. 18769, fol. 62r: 'Aut si Iustinus xi annis regnavit, ut quidam scribit, xxx anni desunt.'

³⁷³ Munich, MS Clm. 18769, fol. 62r: 'Quos tamen in annis regum a passione Domini usque ad primum annum Zenonis imperatoris prenotatis interceptos esse ideo non putamus, quoniam in his sequendo celebriores historias et annos ab urbe condita et annos olimpiadum et annos a passione Domini omnimodo concordare videmus.'

³⁷⁴ Munich, MS Clm. 18769, fol. 62r: 'Verbi gratia. Anno ab urbe condita m[c]xlviiii, olimpiadis ccxciii quarto anno, post obitum Theodosii prioris Archadius in oriente, Honorius in occidente regnare ceperunt.' See also Paul the Deacon, *Historia romana*, 12:8. According to Heimo's chronological scheme, however, the fourth year of the 293rd Olympiad (293/4) corresponded with the 1150th year since the founding of Rome (1150 AUC). Presumably this difference of one year has to do with the conversion of the AUC number on 22 April.

³⁷⁵ Munich, MS Clm. 18769, fol. 62r: 'In quorum secundo anno transiit sanctus Martinus Turonensis episcopus sicut legitur in vita ipsius, die dominica anno a passione Domini ccclxvii.' We do not encounter this chronological designation in Sulpicius Severus's *Vita sancti Martini*, but we do find it in Gregory of Tours, *Historia Francorum*, 1:43.

³⁷⁶ Munich, MS Clm. 18769, fol. 62r: 'Item anno ab urbe condita mccxxviii, qui est a Gaio Iulio Cesare quingentesimus xviii sed a nativitate Domini ccclxxviii, testante romana historia

clearly demonstrate that up to 477 there was no disagreement whatsoever amongst the different dating systems.³⁷⁷ By way of a third example Heimo refers finally to Emperor Mauricius (d. 602), who began his reign in 583 with indiction 1.³⁷⁸ Because it is certain that there were 553 years between the first regnal year of Mauricius (AD 583) and the tenth regnal year of Lotharius III (1135), it followed that the missing thirty-three years could not be located in this period, either.³⁷⁹

Heimo therefore had to look for these missing years in the intervening period, namely the reign of the Eastern Roman emperors Zeno (474–91), Anastasius (491–518), Justin I (518–27), Justinian I (527–65), Justin II (565–78), and Tiberius II (578–82).³⁸⁰ (See Table 57.)

As a result of this important conclusion Heimo concentrated on the reigns of these six emperors. He immediately remarks that he does not know for sure whether the thirty-three missing years disappeared from this period as a block or bit by bit.³⁸¹ Heimo therefore puts several theories to the test. In Chapter 3 he had already attributed sixteen and twenty-seven years to Zeno and Anastasius.³⁸² In this hypothesis he next posits that Justin I had reigned no fewer than forty years.³⁸³ Finally he gives to

circa principium regni Zenonis Odoacer Rugus Romam invasit'. See also Heimo of Bamberg, *Consideratio annorum*, 4:2.

³⁷⁷ Munich, MS Clm. 18769, fol. 62': 'In his duobus exemplis, quoniam triplex annorum contestatio consonat, non video cur illis nostra estimatio contradicat.'

³⁷⁸ Munich, MS Clm. 18769, fol. 62': 'Item. Quod Mauricius imperare ceperit anno Domini quingentesimo lxxxiii sub indictione prima, ex ecclesiastica hystoria Anglorum et ex epistolis sancti Gregorii Magni pape colligitur.' See also Bede Venerabilis, *Historia ecclesiastica gentis Anglorum*, ed. by Günter Spitzbart, *Texte zur Forschung*, 34 (Darmstadt, 1997), 1:23, in which a dated letter from Gregory the Great is also cited. Bede, however, mentions 582 (instead of 583) as the first regnal year of Mauricius.

³⁷⁹ Munich, MS Clm. 18769, fol. 62': 'Ex cuius Mauricii primo anno usque ad decimum annum Lotharii tercii seriatim absque magno impedimento scrupuli colliguntur anni dliii. Unde nec in illis ullam interceptionem factam esse puto.'

³⁸⁰ Munich, MS Clm. 18769, fol. 62^{r-v}: 'Restat ergo ut in curriculo annorum illorum vi imperatorum scilicet Zenonis, Anastasii, Iustini senioris, Iustiniani Magni, Iustini iunioris, Tiberii credamus interceptos esse hos xxxiii annos quos nobis deesse videmus.'

³⁸¹ Munich, MS Clm. 18769, fol. 62': 'Ubi vel quomodo, scilicet utrum simul vel per partes intercepti sunt, nondum mihi pro certo occurrit.'

³⁸² Munich, MS Clm. 18769, fol. 62': 'Et fortasse Zeno xvi annis regnavit et post eum Anastasius xxvii, ut prediximus.' See also Heimo of Bamberg, *Consideratio annorum*, 4:3.

³⁸³ Munich, MS Clm. 18769, fol. 62': 'Iustinus vero senior non octo ut quidam dicunt, vel xi ut alii, sed xl annis regnavit.'

Table 57

AD	VA.	AUC	Olymp.	Ind.	Regnal years	Data
AD 34	1 VA	786 AUC	202/4	4	Tiberius 18	† Christ
[...]	[...]	[...]	[...]	[...]		
AD 398	365 VA	1150 AUC	293/4	8	Theodosius I 11	† Theodosius I
AD 399	366 VA	1151 AUC	294/1	9	Archadius & Honorius 1	
AD 400	367 VA	1152 AUC	294/2	10	Archadius & Honorius 2	† Martin of Tours
[...]	[...]	[...]	[...]	[...]		
AD 477	444 VA	1229 AUC	313/3	12	Deposition of Augustulus & Zeno 2	End of the Roman Empire in the West
<i>Interceptio xxxiii annorum</i>					Zeno	
					Anastasius	
					Justin I	
					Justinian I	
					Justin II	
					Tiberius II	
AD 583	583 VA			1	Mauricius 1	
[...]	[...]			[...]		
AD 1135	1135 VA			13	Lotharius III 10	<i>annus praesens</i>

Justinian I, Justin II, and Tiberius thirty-eight, eleven, and seven regnal years, respectively, which brings the total length of the reign to 139 years.³⁸⁴ Combined with the certain number of years from Christ’s Passion to the first regnal year of Zeno (442) and the certain number of years from the first regnal year of Mauricius to the tenth regnal year of Lotharius III (553), Heimo arrives at the hoped-for total of 1134 years from Christ’s Passion to the then *annus praesens* (442 + 139 + 553 = 1134).³⁸⁵

Heimo justifies the forty-year reign of Justin I with three arguments. Firstly, according to this theory Benedict’s death (509 VA) fell in the middle of the reign of Justin I (486–525 VA).³⁸⁶ At the same time the eighth regnal year of Justinian I

³⁸⁴ Munich, MS Clm. 18769, fol. 62^v: ‘deinde Iustinianus xxxviii, post quem Iustinus iunior xi annis et tandem Tiberius vii annis, qui anni simul collecti fiunt cxxxviii’. We encounter this first hypothesis also in the *prior* version of his Easter table: ‘Zeno annis xvi [...] Anastasius xxvii annis [...] Iustinus annis [xl] [...] Iustinianus xxxviii annis [...] Iustinus iunior annis xi [...] Tiberius annis vii’ (Munich, MS Clm. 2, fols 68^r–69^v).

³⁸⁵ Munich, MS Clm. 18769, fol. 62^r: ‘Quos si iungimus annis ccccxlii qui fuerunt a passione Domini usque ad imperium Zenonis, et dl tribus annis qui sunt ab initio imperii Mauricii usque ad decimum annum regni Lotharii tercii, fiunt simul mcxxxiii anni quos querimus.’

³⁸⁶ Munich, MS Clm. 18769, fol. 62^r: ‘Porro Iustino seniori potius quam Iustino iuniori xl annos assigno, incipiens ab anno a passione Domini cccclxxvi indictione viiia, tum quia sic sanctus Benedictus abbas qui in temporibus illius principis virtutibus et miraculis claruit, inter que transitus

was the first year of a new 532-year luni-solar cycle, as numerous chronologists and chronographers had already noted.³⁸⁷ Finally, Heimo refers to a textual argument. It is possible that scribes had copied the number eleven (xi) instead of paleographically similar number forty (xl) for the reign of Justin I.³⁸⁸ Heimo probably derived this argument concerning the Basque letter type from Bernardus Hispanicus, with whom he had discussed many chronological problems.³⁸⁹

This theory was plagued by one obstacle, however. Some authors had dated Benedict's life and death to the reign of Justinian I (526–63 VA).³⁹⁰ Heimo therefore did not object to the hypothesis that these forty years should be attributed to Justin II instead of to Justin I.³⁹¹ Personally Heimo placed greater confidence in the *Vita sancti Mauri*, in which Benedict's life and death were dated to Easter Saturday, 21 March, during the reign of the Goth Theoderic I the Great (493–526), the Vandal king Hilderic (523–30), and the Eastern Roman emperor Justin I (518–27).³⁹²

ipsius de hoc mundo ad Christum, non ultimum sed precipuum locum obtinet, sub eo quoque transiit.'

³⁸⁷ Munich, MS Clm. 18769, fol. 62^v: 'tum quia in sequentibus annis Iustiniani viius annus, qui est a passione Domini dxxxiius, finis est primi magni paschalis cicli, et a sequenti scilicet viii anno eiusdem principis inceptit suum paschalem cyclum Dionisius romanus abbas sicut plerique nostri cronografi et compotiste testantur'. See also *Chronicon Wirziburgense*, Justinian 8. Heimo is wrong by one year, however, because Dionysius Exiguus begins his Easter table in 532 (instead of 533). This may be explained by the fact that in the chronological tables of his seventh book he counted the 532-year luni-solar cycles from Christ's Passion (1 VA), whereby 533 VA did indeed become the first year of a new 532-year cycle.

³⁸⁸ Munich, MS Clm. 18769, fol. 62^v: 'tum quia facillime potuit obrepere scriptoribus ut pro xl scriberent xi familiari et usitata ipsis negligentia, qua more Wasconum I pro i vel i pro I multotiens in signis numerorum commutata in veteri scriptura videmus'.

³⁸⁹ Ebbo of Michelsberg, *Vita sancti Ottonis*, 2:1.

³⁹⁰ Munich, MS Clm. 18769, fol. 62^v: 'Quoniam vero in historiis quibusdam vulgatis scriptum invenitur sanctum Benedictum post heremiticam vitam sub temporibus Iustiniani principis in Monte Cassino in loco qui dicitur Sublacus, doctrina et miraculis claruisse.' See also Ekkehard of Aura, *Chronicon universale*, ed. by Georg Waitz, *Monumenta Germaniae Historica, Scriptores*, 6 (Stuttgart, 1968), pp. 33–231 (p. 140).

³⁹¹ Munich, MS Clm. 18769, fols 62^v–63^r: 'salva tamen pace et gratia ipsius magis credo divinis historiis que asserunt Theodericum regem Gothorum in Italia et Hildericum regem Wandalorum in Affrica et imperatorem Iustinum seniore, non Iustinianum eius nepotem, Constantinopolim regnasse simul eisdem temporibus et sub eis sanctum Benedictum claruisse ac xii kal. apr. in vigilia pasche transisse de hoc mundo'. See also Odo of Glanfeuil, *Vita sancti Mauri*, p. 322.

³⁹² Munich, MS Clm. 18769, fol. 62^v: 'si cui forte propter hoc potius videtur, ut Iustino seniori xi anni et Iustiniano xxxviii, deinde Iustitio iuniori xl anni ascribantur, huic contentiose contraire non propono'.

Finally, Heimo presents a third hypothesis the contents of which he approved, but which he did not fully support.³⁹³ After all, one could also attribute seventeen years to Zeno, thirty-seven years to Anastasius, and twenty-nine years to Justin I.³⁹⁴ Such a division was rather arbitrary, although Benedict's life and death remained within the reign of Justin I and the eighth regnal year of Justinian I did indeed coincide with the first year of Dionysius's Easter table.³⁹⁵

Table 58

<i>Emperor</i>	<i>Hypothesis 1</i>	<i>Hypothesis 2</i>	<i>Hypothesis 3</i>
Zeno	16 (443–58)	16 (443–58)	17 (443–59)
Anastasius	27 (459–85)	27 (459–85)	37 (460–96)
Justin I	40 (486–525)	11 (486–96)	29 (497–525)
Justinian I	38 (526–63)	38 (497–534)	38 (526–63)
Justin II	11 (564–74)	40 (535–74)	11 (564–74)
Tiberius II	7 (575–81)	7 (575–81)	7 (575–81)
Total	139 (443–581)	139 (443–581)	139 (443–581)

In this way Heimo was able to formulate three different hypotheses.³⁹⁶ Because no hypothesis on its own was completely convincing, he left it to the reader to make his own personal choice.³⁹⁷ The reader was even free to formulate a fourth and more convincing hypothesis.³⁹⁸ Heimo would be most pleased, because such

³⁹³ Munich, MS Clm. 18769, fol. 63^r: 'Illi quoque non repugno, sed propius consentio non tamen prorsus aquiesco.'

³⁹⁴ Munich, MS Clm. 18769, fol. 63^r: 'Si quis forte non credens Iustinum seniore tanto tempore scilicet xl annis regnasse, predictos xxxiii annos sic distribuit, ut Zenoni xvii, Anastasio xxxvii, Iustino xxviii ascribat, quoniam hoc modo ad arbitrium sue estimationis annos imperatorum contemperat, quod tamen verum sit non certificat.' The sum of these three reigns (17 + 37 + 29 = 83) does indeed correspond to that of the first hypothesis (16 + 40 + 27 = 83).

³⁹⁵ Munich, MS Clm. 18769, fol. 63^r: 'Tempora quoque sancti Benedicti a regibus sibi contemporaneis non disiungit, et nichilominus Iustiniani imperatoris annis viiius, qui est post imperium Diocletiani cclxus sed a passione Domini dxxxiii, initium paschali cyclo Dionisii dabit.' Heimo here once again makes the mistake of dating the beginning of Dionysius's Easter table in 533 (instead of 532).

³⁹⁶ Munich, MS Clm. 18769, fol. 63^r: 'Ecce iii opiniones proposuimus.'

³⁹⁷ Munich, MS Clm. 18769, fol. 63^r: 'quarum tamen nullam fixe asserimus, sed in arbitrio lectoris esse volumus, quam ex his magis probet'.

³⁹⁸ Munich, MS Clm. 18769, fol. 63^r: 'Vel si omnes rationabiliter reprobat, quartam que potior et vera vel saltem veritati propius accedat ostendat.'

a new theory would be formulated at least in part by using his own research.³⁹⁹ Despite this qualification, Heimo stuck to his main thesis, namely that Christ had died on 25 March on luna xv according to the Jews and on luna xiv according to the Greco-Roman chronology.⁴⁰⁰ Consequently the then *annus praesens* coincided with the 1135th year since Christ's Passion (AD 1135 = 1135 VA).⁴⁰¹ The established chronological data pertaining to these two years constituted for Heimo an unassailable confirmation of his chronological theories.⁴⁰²

Finally, Heimo advises future chroniclers to begin the Dionysian era at Christ's Passion and to interpolate the thirty-three missing years into the reign of the six previously mentioned Eastern Roman emperors.⁴⁰³ Otherwise they would find themselves in violation of natural chronology.⁴⁰⁴ It would not do to insert these thirty-three years in the period before these six emperors, because in so doing the existing harmony amongst the different dating systems would be disturbed.⁴⁰⁵ Nor was insertion of these thirty-three years into the period after these six emperors acceptable, because this too would cause all kinds of contradictions.⁴⁰⁶ With these observations Heimo ends the fourth book of his chronicle.⁴⁰⁷

³⁹⁹ Munich, MS Clm. 18769, fol. 63r: 'vere sciens me cordetenus sibi congaudere, si forte occasione, huius mee inquisitionis excitatus, per Dei gratiam certum inveniatur, quod mihi infirmitatis torpore caliganti, nondum manifesto constat'.

⁴⁰⁰ Munich, MS Clm. 18769, fol. 63r: 'Hoc tamen ex auctoritate evangelica certum habeo: lunam in passione Domini fuisse xvam secundum Iudeos, sed xiiiiam iuxta Latinos viii kal. apr. sicut sancti patres tradiderunt.'

⁴⁰¹ Munich, MS Clm. 18769, fol. 63r: 'et in hoc anno qui est xmus Lotharii tercii, fuisse lunam xvam secundum Iudeos et xiiiiam secundum Latinos et Grecos in kal. apr. sub indictione xiiii, evolutis a passione Domini annis mcxxxiiii et quinto incipiente'.

⁴⁰² Munich, MS Clm. 18769, fol. 63r: 'alioquin cyclorum veritas et ratio que hactenus inconculsa stetit nutabit'.

⁴⁰³ Munich, MS Clm. 18769, fol. 63r: 'Et ideo si quis nova moliri cronica studeat, annos Domini iuxta cyclum Dionisii a passione Domini incipiat, ne evangelii et fidei catholicae refragetur, et xxxiii annos interceptos interim dum nondum certior locus interceptionis eorum constat in annis predictorum vi imperatorum convenienter reponat.'

⁴⁰⁴ Munich, MS Clm. 18769, fol. 63r: 'Nam si eos penitus excluserit nature repugnabit.'

⁴⁰⁵ Munich, MS Clm. 18769, fol. 63r: 'Si vero in annis precedentium principum eos locaverit, de gestam et congruam seriem olimpiadum et annorum urbis condite turbabit.'

⁴⁰⁶ Munich, MS Clm. 18769, fol. 63r: 'Denique in annis subsequentium imperatorum nullum prorsus locum eis multiplex contradictio concedit.'

⁴⁰⁷ Munich, MS Clm. 18769, fol. 63r: 'Et hic finem quarto demus libro.'

Liber quintus: De successionibus romanorum pontificum

Analogous to his treatment of the regnal years in the preceding book, Heimo wanted now to intercalate these thirty-three missing years into the pontifical reigns.⁴⁰⁸ Already in his first chapter Heimo notes that this will likely be an equally difficult task.⁴⁰⁹ He has, after all, encountered in the different manuscript versions of the *Liber pontificalis* many contradictions concerning the order and duration of some pontificates.⁴¹⁰ A comparison of the sung and read liturgical texts revealed that much data from this papal catalogue was confused, misplaced, and in many places even falsified.⁴¹¹ Moreover, the periods of *sedis vacatio* were often noted in a contradictory way, be it through ignorance of contemporary events or laziness on the part of later scribes.⁴¹² This had as a result that Heimo could scarcely distil accurate data for the first seven popes mentioned in the *Liber pontificalis*.⁴¹³

⁴⁰⁸ Munich, MS Clm. 18769, fol. 63^v: 'Conemur per cooperationem Sancti Spiritus si forte, sicut annos Domini et annos romanorum principum concordavimus, sic quoque cum annis Domini et annis principum annos romanorum pontificum concordare possumus.'

⁴⁰⁹ Munich, MS Clm. 18769, fol. 63^v: 'Sed in hac re implicabimus difficultate non modica.'

⁴¹⁰ Munich, MS Clm. 18769, fol. 63^v: 'Si enim ordinem quo sibi successisse vel numerum annorum quo singuli apostolica sedem tenuisse in catalago [*corr.* catalogo] eorum scilicet in romano pontificali assignantur sequemur, multas contradictiones ex libris eorundem pontificum passiones vel gesta continentibus patiemur.'

⁴¹¹ Munich, MS Clm. 18769, fol. 63^v: 'Si vero potius historiis utpote quae per omnes ecclesias sollempniter cantando et legendo frequentanter credere elegerimus profecto ordo et tempora pontificum quacumque de causa esse confusa et transposita, ac etiam falsata in pluribus locis deprehendentur, si tamen caute attendere voluerimus.'

⁴¹² Munich, MS Clm. 18769, fol. 63^v: 'Ipse quoque intermissiones pontificum, scilicet dum aliquo papa decedente apostolica sedes vacavit, donec aliquis in locum eius successit, tam diverse a diversis notantur, sive ex ignorantia eventuum, sive ex vitio scriptorum.'

⁴¹³ Munich, MS Clm. 18769, fols 63^v–64^r: 'ut ex omnibus quid verius vel probabilius sit vix discerni valeat sicut videre poterimus in ipso pontificalis libri principio ubi scriptum est: "Petrus xiiii anno post passionem Domini veniens Romam sedit ibi annis xxiiii, mensibus v, diebus xiii, passusque est iii kal. iul. ultimo anno Neronis, anno Domini xxviii [*corr.* xxxviii]. Deinde Linus sedit annis xii, mensibus iii, diebus xviii, passusque est vi kal. dec. sub Nerone. Deinde Cletus sedit annis xii, mense i, diebus xi, passusque est vi kal. mai. sub Domitiano. Quartus Clemens sedit annis viiii, mensibus ii, diebus x, passusque est sub Traiano viiii kal. dec. et cessavit episcopatum diebus xxi. Quintus Anacletus sedit annis viiii, mensibus ii, diebus x, passusque est iii id. iul. sub Domitiano, et cessavit episcopatum diebus xiii. Sextus Evaristus sedit annis viiii, mensibus x, diebus ii, passusque est sub Traiano v kal. nov., et cessavit episcopatum diebus xviii. Septimus Alexander sedit annis x, mensibus vii, diebus ii, passusque est sub Traiano v id. mai., et cessavit episcopatum diebus xxxv."': See also *Liber pontificalis*, chs 1–7.

Table 59

	<i>Pope</i>	<i>Duration pontificate</i>	<i>Day of death</i>	<i>Sedis vacatio</i>
1	Peter	24yrs + 5m. + 13d. ⁴¹⁴	29 June (in the reign of Nero)	14 years after † Christ
2	Linus	12yrs + 3m. + 18d. ⁴¹⁵	26 November (in the reign of Nero)	–
3	Cletus	12yrs + 1m. + 11d.	26 April (in the reign of Domitian)	– ⁴¹⁶
4	Clemens	9yrs + 2m. + 10d.	23 November (in the reign of Trajan)	21 days
5	Anacletus	9yrs + 2m. + 10d.	13 July (in the reign of Domitian)	13 days
6	Evaristus	8yrs + 10m. + 2d. ⁴¹⁷	28 October (in the reign of Trajan)	18 days ⁴¹⁸
7	Alexander	10yrs + 7m. + 2d.	11 May (in the reign of Trajan)	35 days

Next Heimo exposes a number of contradictions.⁴¹⁹ According to the *Liber pontificalis*, Peter, Clemens, and Alexander were the first, fourth, and seventh popes, respectively.⁴²⁰ This was nevertheless contrary to other sources in which Clemens was Peter's successor and in which Alexander was listed as the fifth or sixth pope.⁴²¹ Moreover according to the *Liber pontificalis* Peter did not die until the fortieth year after Christ's Passion, which is contrary to every imaginable source.⁴²² Thirdly,

⁴¹⁴ In his edition of the *Liber pontificalis*, Mommsen sees two further possibilities for the duration of Petrus's pontificate, namely 25yrs + 1m. + 8d. and 25yrs + 2m. + 3d.: *Liber pontificalis*, p. 2.

⁴¹⁵ In his edition Mommsen gives 11yrs + 3m. + 12d. for the duration of Linus's pontificate. Heimo's designation belongs among the possible variants: *Liber pontificalis*, p. 5.

⁴¹⁶ In his edition Mommsen mentions a *sedis vacatio* of twenty days after Cletus's pontificate: *Liber pontificalis*, p. 6.

⁴¹⁷ In his edition Mommsen gives 9yrs + 10m. + 2d. for the duration of Evaristus's pontificate. Heimo's designation belongs among the possible variants: *Liber pontificalis*, p. 9.

⁴¹⁸ In his edition Mommsen mentions a *sedis vacatio* of nineteen days after Evaristus's pontificate. Heimo's designation belongs among the possible variants: *Liber pontificalis*, p. 9.

⁴¹⁹ Munich, MS Clm. 18769, fol. 64^r: 'Haec dispositio pontificum quanta confusione ordinis annorum intermissionum impedita sit videamus.'

⁴²⁰ Munich, MS Clm. 18769, fol. 64^r: 'Etenim Petrus in primo loco ponitur, quartus Clemens, septimus Alexander.'

⁴²¹ Munich, MS Clm. 18769, fol. 64^r: 'cum tamen omnes asserant quod Petrus sibi Clementem primum successorem ordinaverit, Alexander quoque quintus vel quartus a Petro sederit'. Eusebius nevertheless mentions Linus as Peter's immediate successor: Eusebius and Jerome, *Chronicon*, Olymp. 211/4. Heimo is referring here to the issue taken up by Frutolf of Michelsberg in his chronicle: Ekkehard of Aura, *Chronicon universale*, pp. 99–100.

⁴²² Munich, MS Clm. 18769, fol. 64^r: 'Item. Si post passionem Domini ab anno xiiii Petrus Rome pontificum in xxv annis et mensibus ii tenuit, iunge simul xiiii et xxv. Fiuntque simul xxxviii

Heimo read in the martyrologies that Peter had become Bishop of Rome and Antioch on 18 January and 22 February, respectively, and also that he had died on 29 June.⁴²³ The difference in calendar day between 18 January and 29 June did not, however, agree with the proposed duration of twenty-five years, two months, and three days.⁴²⁴

The pontificate of Clemens also presented several chronological problems. As Peter's successor, Clemens occupied the Holy See for only nine years according to the *Liber pontificalis*, and yet his pontificate extended to the reign of Trajan (d. 117).⁴²⁵ This Emperor began to rule at least thirty years later, however, than the year of Nero's suicide, under whose rule the apostle Peter was crucified.⁴²⁶ Moreover, Heimo counts four months and twenty-four days from Peter's crucifixion on 29 June to the death of Clemens on 23 November.⁴²⁷ Consequently he notes a deficit of two months and fifteen days for the pontificate of Clemens.⁴²⁸

anni, et occurret tibi quia xxxix annis evolutis in xl^o anno post passionem Domini passus est Petrus, quod tamen prorsus negant tam seculares quam sacre scripture.' Eusebius and Bede note thirty-six and thirty-seven years, respectively, between Christ's Passion and Peter's crucifixion: Eusebius and Jerome, *Chronicon*, Olymp. 205/2 and 211/4, and Beda Venerabilis, *De temporum ratione liber*, ch. 66 (AM 3984 and AM 4021).

⁴²³ Munich, MS Clm. 18769, fol. 64^r: 'Item in martirologiis annotantur xv kal. febr. cathedra sancti Petri quam primo Rome papa sedit, sicut viii kal. mar. cathedra sancti Petri quam primo Anthochie sedit episcopus, et passio eius celebratur iii kal. iul.' According to the Carolingian calendar Peter's episcopal consecration at Rome was indeed celebrated on 18 January and Peter's episcopal consecration in Antioch on 22 February: Borst, *Der karolingische Reichskalender*, I, 484 and 602.

⁴²⁴ Munich, MS Clm. 18769, fol. 64^r: 'Si ergo in xv kal. feb. est est anniversarius eius apostolice sessionis, et iii kal. iul. eius passionis, profecto Petrus ultra xxv annos sedit v menses et dies xii, qui numerantur a xv kal. feb. usque ad iii kal. iul. falsaque est annotatio premissa qua scribitur tantummodo duos menses et tres dies assumpsisse.' Heimo here responds to an existing manuscript tradition: *Liber pontificalis*, ch. 1.

⁴²⁵ Munich, MS Clm. 18769, fol. 64^r: 'Deinde si Clemens factus papa solus viiii annos sedit quomodo ad imperium Traiani pervenit.'

⁴²⁶ Munich, MS Clm. 18769, fol. 64^r: 'Etenim a morte Neronis usque ad Traianum xxx anni inintercesserunt.'

⁴²⁷ Munich, MS Clm. 18769, fol. 64^r: 'Item a iii kal. iul. ubi Petrus obiit usque ad viiii kal. dec. ubi Clemens iiiii menses et xxiiii dies intersunt.'

⁴²⁸ Munich, MS Clm. 18769, fol. 64^r: 'Qui cum sine dubio viiii annis pontificii Clementis supra tribuendi sint inciose in premissis catalogo, menses duo, diesque xv subtracti sunt.' According to the *Liber pontificalis* Clemens ruled 9yrs + 2m. + 10d., which is indeed two and a half months too short to bridge the gap between the death of Peter (29 June) and the death of Clemens (23 November).

Logically, Heimo dated the twenty-one-day *sedis vacatio* between 23 November and 18 December.⁴²⁹ The pontificate of the new pope, Anacletus, consequently began on 18 December and lasted according to the *Liber pontificalis* nine years, two months, and ten days, namely to 13 July in the nineteenth regnal year of Domitian (d. 96).⁴³⁰ According to Heimo, however, this could hardly be reconciled with the truth, for in that case Anacletus would have died at least eleven years before Clemens and could never have succeeded him.⁴³¹ Because the difference between Anacletus's succession on 15 December and his death on 13 July was nearly seven months in calendar days, Heimo could not understand why according to the papal catalogue he had reigned for only nine years, two months, and ten days.⁴³²

These few examples from the beginning of the *Liber pontificalis* could be multiplied many times over.⁴³³ Heimo thought it irresponsible on the one hand to reconstruct history from Christ's Passion using regnal years but on the other hand failing to do so with the help of pontifical years.⁴³⁴ Both functions had been in continual use and must logically give the same number of years from Christ's Passion to the then *annus praesens*.⁴³⁵ Consequently Heimo wished to reconstruct

⁴²⁹ Munich, MS Clm. 18769, fol. 64^r: 'Deinde sequitur et cessavit episcopatum diebus xxi. Numeremus ergo dies xxi ab viiii kal. dec. obitu Clementis usque ad xviii kal. ian. et eos cessationi deputemus.'

⁴³⁰ Munich, MS Clm. 18769, fol. 64^r: 'In xviii kal. ian. ordinatus est Anacletus et sedit viiii annis, mensibus ii, diebus x, passusque est iii id. iul. sub Domitiano.'

⁴³¹ Munich, MS Clm. 18769, fol. 64^{r-v}: 'Istud quomodo verum probetur non facile occurrit. Si enim Clemens passus est sub Traiano imperatore qui fere xxx annis destetit a Nerone, et Anacletus passus est post Neronem xviii anno sub Domitiano xi anni ante imperium Traiani, videat qui possit quomodo Anacletus Clementi successerit, cum obitus eius obitum illius xi annis precesserit.'

⁴³² Munich, MS Clm. 18769, fol. 64^v: 'Item ab xviii kal. ian. quem diem ordinationi Anacleti assignavimus usque ad iii id. iul. obitum eius fere menses sunt [vii]. Qua ergo ratione viiii annis eius duo tantum menses x dies super numerantur?'

⁴³³ Munich, MS Clm. 18769, fol. 64^v: 'Plurima huiusmodi non tantum in capite pontificalis catalogi sed et in se subsequentibus occurrunt, quae animum autenti lectoris offendere poterunt.'

⁴³⁴ Munich, MS Clm. 18769, fol. 64^v: 'Nos tamen quoniam incongruum nobis videtur decursum redemptionis nostra per tempora secularium principum distinxisse, per pontificum summorum eiusdem redemptionis predicatorum distinguere neglexisse.'

⁴³⁵ Munich, MS Clm. 18769, fol. 64^v: 'cum tamen fere ab ipso tempore resurrectionis dominice usque nunc utraque potestas scilicet regnum et pontificium numquam vel raro suis gubernatoribus vacasset sitque certissimum annos horum duum capitum scilicet romanorum principum et romanorum pontificum adeo sibi in summa naturaliter concordare, ut neutri possint alteris superhabundare'.

this period using pontifical years, as well.⁴³⁶ He set a number of practical parameters at the outset, namely that the year of death of a pope would count as the final year of the previous pontificate and the potential period of *sedis vacatio* would be counted towards the new pontificate.⁴³⁷ With this last criterion Heimo compensated for the uncertain designation of a given *sedis vacatio*.⁴³⁸ Moreover, if necessary he wanted to adjust the length of the pontificates, as well, so that they would agree with the reign of any given emperor who was described as a contemporary of that pope in trustworthy sources.⁴³⁹

Finally, Heimo proposes to define nine points of connection between pope and emperor which were supposed to prevent the reconstructed pontifical years from straying too far from the already established regnal years.⁴⁴⁰ Via these points of

⁴³⁶ Munich, MS Clm. 18769, fol. 64^v: 'conemur ut diximus per Dei adiutorium ab ipsa dominica passione vel resurrectione tempora singulorum pontificum collegere'.

⁴³⁷ Munich, MS Clm. 18769, fol. 64^v: 'sic videlicet ut obitus eorum quibus de hoc mundo transierunt signemus, et totum tempus ab obitu predecessoris usque ad obitum proximi successoribus ascribamus prelationi eiusdem successoris, parvi pendentes utrum ei statim in prelatione successit, sive aliquamdiu precessionem dilatus fuisset'. In his third book had Heimo already made a similar agreement for the pre-Christian period: Heimo of Bamberg, *Consideratio annorum*, 3:13.

⁴³⁸ Munich, MS Clm. 18769, fol. 64^v: 'ut hoc modo rationabiliter ex Adamus incertam annotationem intermissionum vel cessationum apostolicarum sessionum'.

⁴³⁹ Munich, MS Clm. 18769, fol. 64^v: 'Numeros quoque annorum quibus singuli in sua prelatione sederunt sic moderari studeamus ut nullius pontificis annos ab annis illius principis, cui secundum veteres et magis probabiles ac in sancta ecclesia usitatas hystorias contemporaneus fuisse describitur disiungamus.'

⁴⁴⁰ Munich, MS Clm. 18769, fols 64^v–65^r: 'ad cuius rei evidentiam proponamus nobis in ore vianantium certos terminos, quosdam extremos et quosdam medios quibus semper intendamus, ne nos nimium a tramite rectitudinis digredi contingat. Hi vero termini sint huiusmodi. Constat quia ultimus annus sessionis Petri apostoli et eius a quo passus est Neronis annus imperii ultimus concurrat. Similiter ultimus annus Alexandri pape sicut legitur in libro passionis eius et ultimus anni Traiani concurrent. Decius quoque imperator eodem anno quo Syxtus papam et Laurentium ac Yppolitum martirio consummavit mala morte cum Valeriano interiit. Item sicut in cronica Ieronimi invenitur Liberius papa usque ad secundum annum Valentiniani et Valentis imperatorum durans obiit. Item. Penultimo vite sue anno Honorius imperator post decessum Siricii pape cum duos simul electi essent scilicet Eulalius et Bonifacius, remoto Eulalo Bonifacium papam in sede romana confirmavit. Item Gregorius primus papa secundo anno Foce imperatoris indictione viiia migravit ad Dominum. Item anno Domini dccc [corr. cccci] indictione viiia Leo tercius sexto papatus sui anno in die nativitatis Domini Karolum regem Francorum coronans imperatorem augustum appellavit. Item anno Domini mliii Leo nonus qui prius Bruno obiit xiii kal. mai. anno xv Heinrici tercii imperatoris. Denique anno Domini mcxxx indictione viiia obiit Honorius secundus papa clxiii anno Lotharii tercii quinto.'

connection Heimo wanted to trace his way up to his own day.⁴⁴¹ It proved, however, to be very difficult to construct a complete harmonization of regnal and pontifical years.⁴⁴² In the following nine chapters (2–10), Heimo would systematically date the year of death of every pope since Christ's Passion, adding mention of the most important events during any given pontificate.⁴⁴³ (See Table 60.)

In Chapter 11 Heimo draws up the final balance of all of these calculations.⁴⁴⁴ Between the first and the second point of connection he counts seventy-three years, three months, and seventeen days, namely from the accession of Peter as first Bishop of Rome on 18 January 14 VA until the death of Pope Alexander on 3 May 87 VA.⁴⁴⁵ Indeed the same interval occurs from the fourth regnal year of Claudius (14 VA) up to and including the last regnal year of Trajan (87 VA).⁴⁴⁶ Up to the third point of connection, namely the death of Pope Sixtus II on 6 August 221 VA, there were subsequently 134 years, 3 months, and 5 days.⁴⁴⁷ Heimo found the same interval as well in the Olympiad reckoning for the period from Trajan's year of

⁴⁴¹ Munich, MS Clm. 18769, fol. 65: 'His itaque terminis sic dispositis intendentes a primo per medios usque ad ultimum gradatim procedamus.'

⁴⁴² Munich, MS Clm. 18769, fol. 65: 'ita nimirum ut reor et historicis relationibus non derogamus, et vitia scriptorum temperamus, veritatem quoque rerum vel veraciter attingimus, vel non multum ab eo deviamus, licet scripta quorundam cronograforum ad eo videantur nobis refragari ut non facile occurrat quomodo cum ipsis possimus concordari.'

⁴⁴³ Munich, MS Clm. 18769, fol. 65: 'Annos quoque Domini obitibus singulorum pontificum assignemus, ut ex illorum consideratione utrorumquo concordiam et probabilitatem magis elucescere faciamus. Gesta quoque quorundam quibusque sanctae Dei aeclesiae vel profuerunt vel derogaverunt compendiose notemus, ut sic lectoris animum et noticia temporum instruamus et moralium institutorum auctoritate edificemus.'

⁴⁴⁴ Munich, MS Clm. 18769, fol. 79^r: 'Recolligamus ergo summatim singulorum terminorum annos gradatim a primo per medios ad ultimum, et videbimus quam pulchre et votive convenient anni Domini et anni Romanorum imperatorum ac pontificum.'

⁴⁴⁵ Munich, MS Clm. 18769, fol. 79^r: 'Etenim a xv kal. feb. ubi primum exactis a dominica passione xii annis viii mensibus xxiiii diebus Petrus apostolus Rome pontificalem insedit cathedram usque ad v non. mai. ubi Alexander papa quintus ultimo anno Traiani passus est, colliguntur anni lxxiii, menses iii, dies xvii.'

⁴⁴⁶ Munich, MS Clm. 18769, fol. 79^{r-v}: 'totidem etiam anni defluxisse a quarto Claudii anno usque ad ultimum Traiani probatur per annos urbis condite et olimpiadum et per annos Domini in quorum xiii iam fere exacto ut diximus Petrus Rome papatum suscepit, et lxxxvi [corr. lxxxvii] Alexander papa passus est'.

⁴⁴⁷ Munich, MS Clm. 18769, fol. 79^r: 'Item a v non. mai. passione Alexandri usque ad viii id. aug. passionem Sixti secundi pape xximi colliguntur cxxxiii, menses iii, dies v.'

Table 60

	<i>Data</i>	<i>Day of death</i>	<i>Points of connection</i>
	† Christ	25/3/1 VA	
1	† Peter	29/6/38 VA	38 VA = † Peter = † Nero ⁴⁴⁸
2	† Alexander	3/5/87 VA	87 VA = † Alexander = † Trajan ⁴⁴⁹
3	† Syxtus II	6/8/221 VA	221 VA = † Syxtus = † Decius ⁴⁵⁰
4	† Liberius	24/9/334 VA	334 VA = † Liberius = Valentinian and Valens 2 ⁴⁵¹
5	† Zosimus	26/12/390 VA	391 VA = Boniface 1 = Honorius 27 ⁴⁵²
6	† Gregory I	12/3/605 VA	605 VA = † Gregory = Phocas 2 = indiction 8 ⁴⁵³
7	° Emperor Charlemagne	25/12/801 VA	801 VA = Leo III 6 = imperial crowning of Charlemagne ⁴⁵⁴

⁴⁴⁸ Munich, MS Clm. 18769, fol. 65^v: 'Petrus [...] passus est iiii kal. iul. ultimo anno Neronis, sed xxxviii dominicae passionis.'

⁴⁴⁹ Munich, MS Clm. 18769, fol. 65^v: 'Passi sunt cum eo [=Alexandro] Eventius et Theodolus v non. mai. Sepultusque est via Numentana ab urbe Roma miliario vii anno xviii Traiani imperatoris, sed lxxxvii dominicae passionis, in quo etiam anno idem Trajanus pro fluvio ventris interiiit. Ecce pervenimus ad secundum quem nobis prescriptissimus terminum, scilicet ultimum annum papatus Alexandri et interitus Traiani.'

⁴⁵⁰ Munich, MS Clm. 18769, fol. 69^v: 'Idem ergo annus scilicet passionis Syxti papa et notabilis interitus Decii a passione Domini ccxxii est tercius terminus quem nobis superius proposuimus.'

⁴⁵¹ Munich, MS Clm. 18769, fol. 71^v: 'Liberius postquam rediit de exilio sedit annis viii et obiit viii kal. oct. anno secundo Valentiniani et Valentis imperatorum, evolutis annis Domini cccxxxiii, menses vi, dies i. Ecce quantum terminum quem proposuimus attingimus.'

⁴⁵² Munich, MS Clm. 18769, fol. 72^v: 'Obiit [Zosimus] vii kal. ian. [...] Deinde orta est contentio inter partes, aliis eligentibus Eulalium, aliis Bonifacium. Sed consilio et precepto Honorii imperatoris uterque ab urbe Rome exclusus est remotus papa xliiii confirmatus Bonifacius [...] Obit viii kal. nov. evolutis annis Domini cccxcv mensibus vii. Sepultus est via Salaria iuxta corpus Felicitatis martyris regnante Valentiniano augusto et matre sua Placidia augusta, et hic quintum terminum transilivimus annis v, mensibus viii, diebus xxx.' Heimo calculates that at the the moment of Boniface's death (25 October 396 VA) the fifth point of connection was exceeded by precisely five years, nine months, and thirty days. Consequently we must place this connection point on the day of Pope Zosimus's death (26 December 390 VA). From this it indeed follows that the deposition of Eulalius and the re-election of Boniface took place in the penultimate year of the reign of Emperor Honorius (365–92 VA).

⁴⁵³ Munich, MS Clm. 18769, fol. 74^v: 'Transiit [Gregorius] iiii id. mar. sepultus est in aecclesia beati Petri, evolutis annis Domini dciiii [corr. dciii], mensibus xi, diebus xviii, indictione viiia, secundo anno Foce regnantis. Et hic sextum terminum quem prenotavimus attingentes huius capituli finem faciamus.'

⁴⁵⁴ Munich, MS Clm. 18769, fol. 76^{v-v}: 'Deinde viii kal. ian. in die nativitatis Domini Leo papa Karolo regi Francorum coronam imperialem imposuit cesarem et augustum Romanorum appellavit totusque senatus et populus consensit et acclamavit anno regni karoli xxvi anno Leonis papa sexto, evolutis annis Domini dccc et viii mensibus, et hic annus est viius nostri itineris terminus.'

<i>Data</i>	<i>Day of death</i>	<i>Points of connection</i>
8 † Leo IX	19/4/1054 VA	1054 VA = † Leo IX = Henry III 15 ⁴⁵⁵
9 † Honorius II	13/2/1130 VA	1130 VA = † Honorius II = Lotharius III 5 ⁴⁵⁶

death ($224/2 = 87$ VA) to Decius's death ($257/4 = 221$ VA).⁴⁵⁷ Heimo climbs ever further towards the present and counts 113 years, 1 month, and 19 days to the death of Pope Liberius on 24 September 334 VA.⁴⁵⁸ According to the reckoning from the founding of Rome precisely as many years had elapsed from the death of Decius (1006 AUC = 221 VA) to the second regnal year of Valentinianus and Valens (1119 AUC = 334 VA).⁴⁵⁹ To the fifth point of connection, namely the death of Pope Zosimus on 26 December 390 VA, according to Heimo's reckoning fifty-six years and three months had elapsed.⁴⁶⁰ This agreed with the reckoning from the founding of Rome from the second regnal year of Valentinianus and Valens (1119 AUC = 334 VA) to the twenty-fifth regnal year of Emperor Honorius (1175 AUC = 390 VA).⁴⁶¹

Subsequently 214 years, 2 months, and 17 days elapsed until the death of Pope Gregory I the Great.⁴⁶² Precisely that many years were recovered in the period from the twenty-sixth regnal year of Emperor Honorius (391 VA) until the second regnal

⁴⁵⁵ Munich, MS Clm. 18769, fol. 78^r: 'Obiit [Leo IX papa] anno Domini mliiii [corr. mliiii] xiii kal. mai., qui est annus xvus Heinrici tercii et sepultus est iuxta corpus sancti Gregorii in basilica sancti Petri apostoli. Etiam meta viii termini attingimus.'

⁴⁵⁶ Munich, MS Clm. 18769, fol. 79^r: 'Seditque Honorius secundus annis v, mensibus ii, diebus viii usque ad annum Domini mcccix qui est annus regni Lotharii tercii quintus, ultimus quem preposuimus nobis terminus.'

⁴⁵⁷ Munich, MS Clm. 18769, fol. 79^r: 'Totidem quoque anni inveniuntur ab ultimo anno Traiani, qui est ccxxiiii olimpiadis secundus usque ad finem Decii qui interiit olimpiadis cclvii quarto anno.'

⁴⁵⁸ Munich, MS Clm. 18769, fol. 79^r: 'Item ab viii id. aug. passione Sixti usque ad viii kal. oct. obitum Liberii pape xxviimi colliguntur anni cxiii, mensis unus, dies xviii.'

⁴⁵⁹ Munich, MS Clm. 18769, fol. 79^r: 'Totidem anni inveniuntur ab interitu Decii usque ad secundum annum Valentiniani et Valentis imperatorum. Etenim anno urbis condite mvi Decius interiit, et Valentinianus cum fratre suo Valente anno urbis condite mcxviii regnare incepit.'

⁴⁶⁰ Munich, MS Clm. 18769, fol. 79^r: 'Item a vii kal. oct. principio papatus Damasi qui Liberio successit usque ad vii kal. ian. obitum Zosimi pape xliiimi colliguntur anni lvi et tres menses.'

⁴⁶¹ Munich, MS Clm. 18769, fol. 79^r: 'Totidem anni inveniuntur a secundo anno Valentiniani usque ad xxvum annum Honorii imperatoris qui est urbis condite mclxxv.'

⁴⁶² Munich, MS Clm. 18769, fol. 79^r: 'Item ab obitum Zosimi usque ad transitum sancti Gregorii pape lxviti iiii id. mar. colliguntur anni ccv [corr. ccxiii], menses ii, dies xvii.'

year of Emperor Phocas (604–05 VA).⁴⁶³ To the seventh point of connection, namely the imperial coronation of Charlemagne in the sixth pontifical year of Leo III, Heimo counts 196 years, 9 months, and 16 days.⁴⁶⁴ He finds this same number of years as well from the second half of the second regnal year of Phocas with indiction 8 (=605 VA) to the imperial coronation of Charlemagne in the year with indiction 9 (=801 VA).⁴⁶⁵ The eighth and penultimate point of connection, namely the death of Pope Leo IX on 19 April 1054 VA, followed 252 years, 3 months, and 26 days later.⁴⁶⁶ This number of years agreed with the period extending from the imperial coronation of Charlemagne with indiction 9 (=801 VA) to the fifteenth regnal year of Emperor Henry III with indiction 7 (=1054 VA).⁴⁶⁷ Finally, 75 years, 9 months, and 25 days elapsed before the death of Pope Honorius II on 13 February 1130 VA.⁴⁶⁸ Heimo counts precisely that many years from the sixteenth regnal year of Henry III (=1055 VA) to the fifth regnal year of Lotharius III (=1130 VA).⁴⁶⁹

According to Heimo the sum of these nine periods came out to 1116 years and 27 days, precisely the period from Peter's accession as the first Bishop of Rome on

⁴⁶³ Munich, MS Clm. 18769, fol. 79^v: 'Totidem etiam anni inveniuntur ab anno xxvi Honorii imperatoris usque ad secundum annum Foce imperatoris.' The reign of the Eastern Roman Emperor Phocas began according to Heimo's corrected era in 603 VA. Consequently Gregory I could indeed have died in the second regnal year of the same Phocas (605 VA).

⁴⁶⁴ Munich, MS Clm. 18769, fol. 79^v: 'Item a transitu sancti Gregorii pape usque ad sextum annum tercii Leonis pape xcvi colliguntur anni cxcv [corr. cxcvi], menses viiii, dies xvi.'

⁴⁶⁵ Munich, MS Clm. 18769, fol. 79^v: 'Totidem etiam anni inveniuntur a secundo anno Foce quando sanctus Gregorius transiit anno Domini dv [corr. dcv], indictione viiia usque ad annum Domini dccc, quando sexto papatus sui anno tercius Leo viii kal. ian. Karolum regem Francorum coronavit et imperatorem Romanorum esse constituit, indictione viiia, cum iam xxxvi fere annos in Francia regnasset.' If 605 VA has indiction 8, then the year 801 VA does indeed have indiction 9.

⁴⁶⁶ Munich, MS Clm. 18769, fol. 79^v: 'Item ab octava kal. ian. viti anni Leonis tercii usque ad xiiii kal. mai. obitum noni Leonis pape cliidi colliguntur anni ccliii [corr. cclii], menses iii, dies xxvi.'

⁴⁶⁷ Munich, MS Clm. 18769, fol. 79^v: 'Totidem anni inveniuntur a primo anno imperii Karoli, qui anno Domini dccc in die natali Domini imperator Romanorum factus est, usque ad xvum annum tercii Heinrichi imperatoris, qui est annus Domini mliiii, quando obiit nonus Leo indictione viiia.' If 801 VA has indiction 9, then the year 1054 VA does indeed have indiction 7.

⁴⁶⁸ Munich, MS Clm. 18769, fol. 79^v: 'Denique ab obitu noni Leonis pape usque ad obitum secundi Honorii pape id. feb. colliguntur anni lxxvi [corr. lxxv], menses viiii, dies xxv.'

⁴⁶⁹ Munich, MS Clm. 18769, fol. 80^r: 'Totidem quoque anni inveniuntur a xvi anno tercii Heinrichi imperatoris usque ad quintum annum tercii Lotharii.'

18 January 14 VA to the death of Pope Honorius II on 13 February 1130 VA.⁴⁷⁰ Because Peter became bishop, however, only twelve years, nine months, and twenty-four days after Christ's Passion, the period from Christ's Passion on 25 March 1 VA to the death of Pope Honorius II on 13 February 1130 VA came to a total of 1128 years, 10 months, and 20 days.⁴⁷¹

Table 61

	<i>VA</i>	<i>Data</i>	<i>Duration</i>
	25/3/1	† Christ	+ 12yrs + 9m. + 24d.
1	18/1/14	° Pope Peter	+ 73yrs + 3m. + 17d.
2	3/5/87	† Alexander	+ 134yrs + 3m. + 5d.
3	6/8/221	† Sixtus II	+ 113yrs + 1m. + 19d.
4	24/9/334	† Liberius	+ 56yrs + 3m.
5	26/11/390	† Zosimus	+ 214yrs + 2m. + 17d.
6	15/3/605	† Gregory I	+ 196yrs + 9m. + 16d.
7	25/12/801	° Emperor Charlemagne	+ 252yrs + 3m. + 26d.
8	19/4/1054	† Leo IX	+ 75yrs + 9m. + 25d.
9	13/2/1130	† Honorius II	
1–9. 25/3/1 – 13/2/1130			= 1128yrs + 10m. + 20d.

With this Heimo considered the validity of his reckoning in pontifical years proven, and the many scribal errors in the *Liber pontificalis* corrected.⁴⁷² He may have been mistaken here or there when it came to the details, but nevertheless he

⁴⁷⁰ Munich, MS Clm. 18769, fol. 80^r: 'Componantur ergo simul iste octo summe, scilicet anni lxxiii, menses iii, dies xvii, et cxxxiiii anni, menses iii, dies v, et anni cxiii, mensis i, dies xviii, et anni lvi, menses iii, et anni ccxiii, menses ii, dies xvii, et anni cxcvi, menses viiii, dies xvi, et anni ccliii [corr. cclii], menses iii, dies xxvi, et anni lxxvi [corr. lxxv], menses viiii, dies xxv, et fiunt simul anni mille centum xvi et dies xxvii a cathedra sancti Petri primi pape xv kal. feb. usque ad obitum secundi Honorii pape clxiii id. feb.' The actual sum of these years is, however, 1113 years, 33 months, and 125 days. When converted this comes to a period of approximately 1116 years and 33 days, but Heimo notes here not the actual result but rather the desired outcome.

⁴⁷¹ Munich, MS Clm. 18769, fol. 80^r: 'His annis si preponantur xii anni, menses viiii, dies xxiii, qui fuerunt ab viii kal. apr. passionis Domini usque ad xv kal. feb. kathedram sancti Petri, fiunt mcxxviii [corr. mcxxvii] anni, menses x, dies xx a passione Domini usque ad obitum Honorii secundi pape clxiiiiti.'

⁴⁷² Munich, MS Clm. 18769, fol. 80^r: 'Ecce si recte et diligenter estimentur, quomodo sibi concordant et concurrunt anni Domini et anni Romanorum principum et anni pontificum. Unde cui evidentissime apparet vicio scriptorum accidissee, quod in plerisque exemplaribus tantopere discrepant.'

did not wish to be considered a liar or counterfeit.⁴⁷³ Like the authoritative Moses, Heimo had not presented his chronological data to the last detail, but he had succeeded in his aim to reconcile regnal and pontifical years.⁴⁷⁴ Heimo therefore hoped for the approval of the reader.⁴⁷⁵ Should this not be forthcoming, then he urged that same reader to find a better solution.⁴⁷⁶ Irrespective of the verdict of his reader, Heimo did at any rate look back with satisfaction at the results of his chronological calculations.⁴⁷⁷

Heimo entitled his twelfth chapter an epilogue to all previous chapters and at the same time an introduction to the chronological tables that constitute the last two books of his chronicle.⁴⁷⁸ He summarizes succinctly that he had carried out two chronological corrections, namely forty years for the pre-Christian period (AM 3993 instead of AM 3952) and thirty-three years for the Christian period (1 VA = AD 34).⁴⁷⁹ Heimo had detected these seventy-three missing years chronographically, as well, and arrived thereby at the inevitable conclusion that the common

⁴⁷³ Munich, MS Clm. 18769, fol. 80^r: 'In superioribus autem designationibus annorum pontificum si forte deprehendar omnimodum rerum eventum non semper tenuisse, dum vel propter ignorantiam rerum vel discrepantiam exemplarium seductus interdum uni pontifici minus, et alii plus temporis quam iure ei contigisset assignavi, non idcirco mendax vel falsator appellari debeo.'

⁴⁷⁴ Munich, MS Clm. 18769, fol. 80^r: 'sicut nec Moyses legislator ideo culpandus est, quia etates omnium patrum antecessorum suorum per integros annos distinxit, cum tamen omnium etates non semper in integris annis cohiberentur, sed interdum aliquot mensibus infra vel ultra sorte humanae mortalitatis finirentur intendens tantummodo summa temporum absque minutiis propter facilitatem legentium comprehendere, sic et ego in hoc opere cum non possem puram rerum veritatem per omnia servare quanto magis tamen potui annos pontificum annis principum studui contemperare, et sic veritati rerum saltem appropinquare'. See also Heimo of Bamberg, *Consideratio annorum*, 3:13.

⁴⁷⁵ Munich, MS Clm. 18769, fol. 80^r: 'Quod si lectori gratum erit benedictus Deus.'

⁴⁷⁶ Munich, MS Clm. 18769, fol. 80^{r-v}: 'si displicebit ut verius et melius inveniat me suasorem habebit'.

⁴⁷⁷ Munich, MS Clm. 18769, fol. 80^v: 'Quod sive invenerit sive invenire pigebit aut forte non poterit, me tamen studii et laboris ac intentionis mee non pudebit vel pigebit.'

⁴⁷⁸ Munich, MS Clm. 18769, fol. 80^v: 'Epilogus omnium premissorum et ratio dispositionis subsequentium cyclorum.'

⁴⁷⁹ Munich, MS Clm. 18769, fol. 80^v: 'Executi sumus quod proposuimus: Domino donante ostendimus ubi vel qua occasione in cronicis modernorum cronograforum et ab annis ab initio seculi usque ad passionem Domini nostri Iesu Christi sint intercepti xl anni, et ab annis a passione Domini usque ad nos subtrahantur xxxiii.'

rules of thumb concerning the date of Creation and the Passion of the Lord appeared to contradict the gospel verity.⁴⁸⁰

The continuation of this epilogue is a commentary on the structure of the exhaustive series of tables from Creation (AM 1) to the then *annus praesens* (AM 5160 = 1135 VA).⁴⁸¹ Together these Easter tables constitute the sixth and seventh books of Heimo's chronicle, with the pivoting point being the date of Christ's Passion (AM 4026 = 1 VA).⁴⁸² Heimo characterizes both of these periods as witnesses to human misery and human salvation, respectively.⁴⁸³

The tables for the pre-Christian period consist of four columns.⁴⁸⁴ Following his specification of the Creation years (AM 1 – AM 4025) Heimo gives the epacts as well.⁴⁸⁵ For the *saltus* year he substitutes the usual medieval designation luna xxx for luna xxix, because he opted for the Jewish *sedes epactarum* (21 March) over the Christian (22 March).⁴⁸⁶ In the third column Heimo provides every year with a concurrent.⁴⁸⁷ The first year of every twenty-eight-year concurrent cycle he labels *nulli* because before the date of Creation no temporal order with concurrents

⁴⁸⁰ Munich, MS Clm. 18769, fol. 80^v: 'qui simul sunt lxxiii, ut cuilibet legenti ac considerare volenti pateat, quare regulae de utrisque annis inveniendis a magistris nostris tradite, dissideant ab evangelica veritate et fide'.

⁴⁸¹ Munich, MS Clm. 18769, fol. 80^v: 'Ne vero premissarum supputationum perplexitatibus, o lector, graveris annos ab initio seculi usque ad nostrum tempus, scilicet annum Domini mcccxxvum, seriatim disposui, in qua dispositione omnia premissa planissime poteris intueri.'

⁴⁸² Munich, MS Clm. 18769, fol. 80^v: 'Hanc autem seriem in duas partes divisi, sic ut teneant unam partem anni ab initio seculi usque ad annum passionis et resurrectionis Iesu Christi, alteram vero partem anni a passione Domini usque ad nos et ultra.'

⁴⁸³ Munich, MS Clm. 18769, fol. 80^v: 'Et prior pars vocetur testamentum humane exultationis et servitutis ac mortis, quoniam in ea initium et procursus ac dilatatio communis humanae miseriae designatur. Altera pars vocetur testamentum humane reparationis et Christiane libertatis ac vitae, quoniam in ea quomodo et quando et ad quid humanum genus sit reparatum rememoratur.'

⁴⁸⁴ Munich, MS Clm. 18769, fol. 80^v: 'Prior pars iiii versibus decurrentibus distinguitur.'

⁴⁸⁵ Munich, MS Clm. 18769, fol. 80^v: 'Ex quibus primus annos defluentis seculi continet ordinaliter. Secundus versus suas singulorum annorum lunares epactas.'

⁴⁸⁶ Munich, MS Clm. 18769, fol. 80^v: 'Qui cum a xiiii epactis, id est a plenilunio primi mensis in quo primitus creata luna eluxit initium habeat, in eo tamen anno in quo nunc nostri computiste Christiani nullas vel xxx epactas ponunt, ego posui xxix secundum Iudeos, qui in eodem anno xxviii lunam in xii kal. apr. numerant et inde trahunt xxviii epactas et secundum illos etiam annos non alibi quam a xiiii luna aprilis, id est a plenilunio iudaici phase, inchoari et finire decrevi.'

⁴⁸⁷ Munich, MS Clm. 18769, fol. 80^v: 'Tercius versus nichilominus habet concurrentes singulorum annorum.'

existed.⁴⁸⁸ The first concurrents (i) thus applied only to the second year of the world.⁴⁸⁹ Finally, in the fourth column Heimo notes the most important data for the lists of successive generations and later as well for the various world empires.⁴⁹⁰ He does not neglect to interpolate the forty missing years into the fifth *aetas*.⁴⁹¹ Heimo considered these four columns sufficient to define the pre-Christian period chronologically and chronographically.⁴⁹²

In the process he makes an explicit distinction between the epact and the concurrent. The epact was after all a 'natural' fact, whereas the concurrent was based on a human invention of studying the weekdays.⁴⁹³ The sun and the moon, however, did not demand human study in order to continue on their natural course.⁴⁹⁴ From Creation to the Passion of Christ there had been over 211 nineteen-year lunar cycles ($211 \times 19 + 16 = 4025$), over 143 twenty-eight-year solar cycles ($143 \times 28 + 21 = 4025$), and well over seven 532-year luni-solar cycles ($7 \times 532 + 301 = 4025$).⁴⁹⁵

⁴⁸⁸ Munich, MS Clm. 18769, fols 80^v–81^r: 'et incipit a nullis concurrentibus, quoniam vere primus annus seculi nullos habuit concurrentes, in tempore et natura, nihil quippe eum precessit'. In the continuation of a twenty-eight-year concurrent cycle Heimo did use the number 7 (vii), because the previous year did indeed possess that concurrent. This vision of time of Heimo's differs fundamentally from Marianus, who in his chronicle calculates the chronological parameters of pre-temporal years: Marianus Scottus, *Chronicon*, 1:8.

⁴⁸⁹ Munich, MS Clm. 18769, fol. 81^r: 'Primo autem anno finito unus concurrens remansit qui non primo sed secundo anno servivit.'

⁴⁹⁰ Munich, MS Clm. 18769, fol. 81^r: 'Quartus versus imprimis tenet generationes et obitus primorum patrum, deinde distinctiones iudicantium et regnorum populi Dei Israhelis, aliarumque quarundam gentium scilicet Sicioniorum, Assiriorum, Egipiorum, Romanorum assignati sunt.'

⁴⁹¹ Munich, MS Clm. 18769, fol. 81^r: 'et aliqui eventus temporum usque ad Christum, ad meliorationem et correctionem nostri in quos fines seculorum devenerunt'.

⁴⁹² Munich, MS Clm. 18769, fol. 81^r: 'Visum est autem mihi in his iiior versibus testamentum humane miserie sufficienter comprehendi posse quoniam primus simpliciter notat temporis naturalem decursum, quartus distinctiones temporalium eventuum, ii medii, id est iius et iiuis utrisque extremis apportat duplex credulitatis testimonium.'

⁴⁹³ Munich, MS Clm. 18769, fol. 81^r: 'Nempe lunarium epactarum testimonium est celeste, quia lunaris cursus non subsistit in arbitrio hominum, sed in indite sibi nature stabilitate. At epactarum solarium attestatio est humana quia ferias considerare per concurrentes, homines invenerunt, pro maiori suo notitia negotiorum.'

⁴⁹⁴ Munich, MS Clm. 18769, fol. 81^r: 'Sublata quippe omni consideratione feriarum nichilominus tamen sol et luna et totus mundus suos cursus peragere [possunt].'

⁴⁹⁵ Munich, MS Clm. 18769, fol. 81^r: 'Transierunt autem a principio mundi usque ad passionem Domini decemnovales cicli lunares ccxi et xvi anni, cicli solares cxliii et anni xxi, cicli magni quingentorum xxxiiorum annorum tantummodo vii et supersunt anni cccci.'

For the period from Christ's Passion (AM 4026) on, Heimo provides his chronological tables with no fewer than ten columns.⁴⁹⁶ In the first column he continues the years since the Creation of the world (AM), which illustrate human misery and disobedience.⁴⁹⁷ By way of contrast Heimo presents in a second column his corrected era (VA), which reminds us of Christ the Saviour.⁴⁹⁸ At the same time Heimo points out that we owe the Saviour eternal thanks, which he among other ways expresses by writing this chronicle.⁴⁹⁹ The next seven columns agree with those of a Dionysian Easter table. He had already dwelt on that subject sufficiently in his *Computus*, written earlier.⁵⁰⁰ Heimo notes in the tenth column not only important chronological data according to the reckoning from the founding of Rome, or according to the Olympiad reckoning, but also according to the corrected regnal years of the Roman emperors and the corrected pontifical years of the then popes.⁵⁰¹ Finally, he makes sporadic note of the obituary data of important saints.⁵⁰² In this last column Heimo did not, however, want to write as a chronicler, but rather to remind his reader of the events that Christ had brought about as signs of His mercy or of a righteous punishment.⁵⁰³

⁴⁹⁶ Munich, MS Clm. 18769, fol. 81^r: 'Altera pars que incipit a passione Domini xcem versibus decurrit.'

⁴⁹⁷ Munich, MS Clm. 18769, fol. 81^r: 'Primus versus simpliciter habet annos seculi et miserie nostre.'

⁴⁹⁸ Munich, MS Clm. 18769, fol. 81^r: 'Secundus habet annos Domini et libertatis nostre ut ex his iibus pariter sese comitantibus semper in memoria teneamus, quod olim in radice formationis nostre per protoplastorum inobedientiam viciata fuerimus, et quid nunc in tempore reparatricis gratie per obedientiam Christi Iesu simus.'

⁴⁹⁹ Munich, MS Clm. 18769, fol. 81^r: 'nec cessemus illi gratiarum actiones omnimodas referre qui nos tanto pretio mortis sue dignatus est in libertatem sanctificationis et spem vite eterne restituere, si tamen usque in finem fide et opere studuerimus illi conformari et coherere'.

⁵⁰⁰ Munich, MS Clm. 18769, fol. 81^r: 'De sequentibus septem versibus in compoto nostro satis tractavimus, ubi paschalem ciclum Dionisii explanavimus. Unde quod ibi pleniter dictum est, nec istic breviter comprehendi potest, suadeo ut illic requiratur et fructuose inveniatur.'

⁵⁰¹ Munich, MS Clm. 18769, fol. 81^{r-v}: 'In decimo versu annos ab urbe condita et numerum olimpiadum et herarum annos quoque Romanorum principum sed et annos Romanorum pontificum, quanto certius et probabilius potui usque ad nos assignavi.'

⁵⁰² Munich, MS Clm. 18769, fol. 81^v: 'quibus etiam interdum admiscui quorundam transitus sanctorum, ad laudem et gloriam ipsorum'.

⁵⁰³ Munich, MS Clm. 18769, fol. 81^v: 'In quibus tamen assignationibus non intendi depingere cronicam, sed Domino tantummodo per memoracionem et debitam gratiarum actionem suam recognoscere id quod nobis inmeritis primo per crucem et resurrectionem suam sola sui gratia

As he had done for the pre-Christian period, Heimo here calculates that from Christ's Passion (1 VA) up to and including the then *annus praesens* (1135 VA) some fifty-nine nineteen-year lunar cycles had elapsed ($59 \times 19 + 15 = 1136$), some forty twenty-eight-year solar cycles ($40 \times 28 + 16 = 1136$), and a little more than two 532-year luni-solar cycles ($2 \times 532 + 72 = 1136$).⁵⁰⁴ Finally, he states that from Christ's Birth (AM 3993) to the then *annus praesens* (AM 5160) some seventy-seven indiction cycles had elapsed ($77 \times 15 + 13 = 1168$).⁵⁰⁵ Heimo concludes his fifth book with the announcement that he had also provided an entire third luni-solar 532-year cycle.⁵⁰⁶ He begged his future readers to follow his example and provide these years with important events that would remind them of the Saviour Christ.⁵⁰⁷

Liber sextus: Testamentum humanae servitutis et miseriae

According to Heimo human misery was brought about by the disobedience of Adam and Eve.⁵⁰⁸ He surveys the seven days of Creation, namely from the Creation of light up to and including the Creation of man in the image of God.⁵⁰⁹ Because the

dictante contulit postremo quid timendum sit, per pravorum notabiles et rememorandas exterminationes nobis proposuit.'

⁵⁰⁴ Munich, MS Clm. 18769, fol. 81^v: 'Denique a passione Domini usque in annum Domini mcccxvum, qui est xmus regni Lotharii tercii, transierunt lunares cicli lviii et xv anni. Cicli solares xl et xvi anni. Cicli magni paschales duo et lxxii anni.' It is striking that all calculations are for the year 1137 VA instead of 1135 VA.

⁵⁰⁵ Munich, MS Clm. 18769, fol. 81^v: 'cicli indictionum a nativitate Christi lxxvii et anni xiii'. The calculation is also carried out for the year 1137 VA (=AM 5162).

⁵⁰⁶ Munich, MS Clm. 18769, fol. 81^v: 'Ceterum ultra hunc annum adieci cccclx annos adhuc forte futuros ad completionem tercii magni cicli pascalis, in quibus successure posteritati statum futurorum temporum discere et assignare relinquo.' Heimo ended his third luni-solar 532-year cycle, however, in 1595 VA (instead of 1596 VA).

⁵⁰⁷ Munich, MS Clm. 18769, fol. 81^v: 'suppliciter rogans omnes ista lecturos, ut mei peccatoris humilisque presbiteri Heimonis qui haec qualiacumque non ad novitatis ostentationem, sed ad veritatis investigationem et iuniorum excitationem conlaboravi, dignentur apud Dominum Iesum Christum in bono reminisci'.

⁵⁰⁸ Munich, MS Clm. 18769, fol. 81^v: 'Incipit testamentum humane servitutis et miserie contractum per inobedientiam protoplastorumade et Eve.'

⁵⁰⁹ Munich, MS Clm. 18769, fol. 81^v: 'Sicut enim testatur scriptura divina in prima die fecit Deus lucem, secunda die firmamentum, tertia die speciem maris, quarta die solem et lunam et stellas, quinta die pisces et volucres, via die bestias et iumenta et novissime ad imaginem et similitudinem suam formavit Adam et Evam.'

Latin Church Fathers and many later scholars, as well, had confirmed that the world was created on 18 March, the sixth day of Creation logically fell on 23 March.⁵¹⁰ Consequently God had rested on the seventh day of the world, more specifically on 24 March.⁵¹¹ Finally Heimo repeats the chronological parameters for the year of the Creation of the world (AM 1), namely epact 14 and concurrent 0 (=7).⁵¹²

Logically enough Heimo situates the beginning of the first *aetas* in the first year of his chronological table (AM 1).⁵¹³ In accordance with the Hebrew verity Heimo dates the beginning of the Great Flood in the six-hundredth year of Noah, more specifically on Friday 1 May AM 1656.⁵¹⁴ After precisely 365 days this devastating Flood ends on Saturday 30 April AM 1657.⁵¹⁵ Then begins the second *aetas* which lasted 367 years, namely up to the seventy-fifth year of Abraham.⁵¹⁶ Heimo remains true to the Hebrew reckoning and dates Abraham's incarnation to AM 1948, which coincides exactly with the foundation of the Egyptian Empire.⁵¹⁷ Consequently Abraham's seventy-fifth year fell in AM 2022, at the same time as the last year of the second *aetas*.⁵¹⁸

⁵¹⁰ Munich, MS Clm. 18769, fol. 81^v: 'Prima autem dies fuit xv kal. apr., sicut estimant sancti scriptores et plerique etiam doctores. Secunda xiiii kal. apr. Tercia xiii kal. apr. Quarta xii kal. apr. Quinta xi kal. apr. Sexta x kal. apr.' See also Heimo of Bamberg, *Consideratio annorum*, 1:1.

⁵¹¹ Munich, MS Clm. 18769, fol. 81^v: 'Septima viiii kal. apr. in qua perfectis caelo et terra et omni ornatu eorum requieuit Deus ab universo opere quod patrauerat.'

⁵¹² Munich, MS Clm. 18769, fol. 81^v: 'Fuerunt ergo in primo anno nascentis mundi xiiii epacte lunares et nulle solares sicut in superioribus commemoravimus, unde et hic ponuntur in capite.' See also Heimo of Bamberg, *Consideratio annorum*, 5:12 (epilogue).

⁵¹³ Munich, MS Clm. 18769, fol. 82^r: 'AM 1: Incipit prima etas mundi.'

⁵¹⁴ Munich, MS Clm. 18769, fol. 90^v: 'AM 1656: Noe anno sexcentesimo venit diluvium mense secundo, qui hebraice Lar dicitur latine Maius, xviii die mensis eiusdem quam nos dicimus kal. mai. feria via, sicut per lunares et solares epactas huius anni probari potest et perdidit eos preter eos qui cum Noe in arca salvati sunt.' See also Heimo of Bamberg, *Consideratio annorum*, 1:10.

⁵¹⁵ Munich, MS Clm. 18769, fol. 90^v: 'Duravit autem diluvium ccclxv diebus. Incepit enim ut dictum est xviii die mensis secundi in kal. mai. feria via et pertransiit anno dci° Noe xvii die mensis secundi que est ii kal. mai. in feria vii, finitaque est prima etas seculi a Creatione solis et lune annis solaribus mdlvi et diebus xli, vel lunaribus annis mclvi et diebus lviii.'

⁵¹⁶ Munich, MS Clm. 18769, fol. 90^v: 'Vixit autem Noe post diluvium annis cccl. A diluvio usque ad nativitatem Abrahe sunt anni ccxcii, quibus addantur lxxv usque ad primum annum promissionis, et fiunt ccclxvii anni secunde etatis seculi.'

⁵¹⁷ Munich, MS Clm. 18769, fol. 92^v: 'AM 1948: Thare anni lxx vita eius genuit Abraham [...] Eodem anno exortum est regnum Egyptiorum.' See also Heimo of Bamberg, *Consideratio annorum*, 2:4.

⁵¹⁸ Munich, MS Clm. 18769, fol. 92^v: 'AM 2022: A diluvio completis ccclxvii annis.'

In the following year God promised Abraham from his seed a great people would arise, among whom would be the Saviour of Mankind.⁵¹⁹ At that moment the third *aetas* began, which according to Heimo would last 866 years.⁵²⁰ This *aetas* could be divided into two nearly equal periods, that is from God's promise to Abraham to Moses's Exodus from Egypt (430 years) and from the Exodus from Egypt to the first regnal year of King David (436 years).⁵²¹ Heimo next has the fourth *aetas* begin in the first regnal year of King David and has it last 473 years, namely until the destruction of Jerusalem.⁵²² Heimo dates this event to AM 3363, the last year of the fourth *aetas*.⁵²³

In the fifth *aetas* Heimo dates the Annunciation of Mary to Saturday 25 March (luna x) in the forty-second regnal year of Augustus (AM 3993).⁵²⁴ Precisely nine months later Christ was born at Bethlehem, namely at the end of the 752nd year from the founding of Rome (752 AUC) and in the third year of the 194th Olympiad (194/3).⁵²⁵ Over twenty-nine years later Jesus was baptized by John the

⁵¹⁹ Munich, MS Clm. 18769, fol. 92^v: 'Abraham enim cum esset annorum lxxv ex precepto Dei egressus est de terra et cognatione sua et venit in terra quam monstravit ei Deus accepitque promissionem quod futurus esset in gentem magnam et quod in semine eius benedicende essent omnes gentes.' See also Heimo of Bamberg, *Consideratio annorum*, 1:10.

⁵²⁰ Munich, MS Clm. 18769, fol. 92^v: 'Igitur a primo anno promissionis, scilicet a lxxvi anno etatis Abraham [*corr.* Abrahe] tercia seculi etas incipit et complebitur dccclxvi annis.'

⁵²¹ Munich, MS Clm. 18769, fol. 92^v: 'Etenim a primo anno promissionis usque ad egressum filiorum Israhelis de Egypto numerantur anni ccccxxx et abhinc usque ad primum annum regni David ccccxxvi, qui simul iuncti fiunt dccclxvi anni.'

⁵²² Munich, MS Clm. 18769, fol. 98^v: 'AM 2891: David primus rex de tribu Iuda regnavit xl annis [...]. Quarta etas seculi incipit a primo anno regni David. Ab hoc numerantur anni cccclxxiii usque ad transmigrationem Iude in Babilonem.'

⁵²³ Munich, MS Clm. 18769, fol. 102^r: 'AM 3363: Hierosalem capta est, templum incensum est, anno ex quo fundari cepit ccccxxx et desertum permansit lxx annis, contestantibus Affricano et Iosepho. Quinta etas incipit a transmigratione Iude in Babylonem, quem fecit Nabuchodonosor rex Babilonis xi anno Sedechie regis.' The actual beginning of the Babylonian exile fell in AM 3364 (instead of in AM 3363). For the reference to Julius Africanus and Flavius Josephus, see Heimo of Bamberg, *Consideratio annorum*, 1:11.

⁵²⁴ Munich, MS Clm. 18769, fol. 106^r: 'AM 3993: Indictiones originem superserunt, quando exiit edictum a cesare Augusto ut describeretur universus orbis sub censum, Augusti anno xlii. Eodem quoque anno adnunciatus est Dominus Ihesus et conceptus viiia kal. apr., luna xa, secundum Iudeos sabbato in Nazareth, indictione prima.' The year AM 3993 has the Jewish epact 6, from which it follows that 21 March fell on luna vi. Consequently 25 March did indeed fall on the Jewish luna x. See also Heimo of Bamberg, *Consideratio annorum*, 1:15.

⁵²⁵ Munich, MS Clm. 18769, fol. 106^r: 'et natus est viii kal. ian. in Bethlehem, indictione secunda, annis ab urbe condita preteritis dccli, tercio instante, Olimpiadis cxciie tercio anno'. The

Baptist on 6 January AM 4023, which constituted the beginning of His public life.⁵²⁶ Finally, human slavery and misery ended in the year before Christ's Passion (AM 1 – AM 4025).⁵²⁷ Heimo's sum of the different *aetates* came to a total of 4024 years ($1656 + 367 + 866 + 473 + 662 = 4024$). AM 4025 was logically the last year of the fifth *aetas*. And yet for the pre-Christian period Heimo counts 4025 complete years, because these were only completed at the moment of Christ's Passion on 25 March AM 4026. Moreover the beginning and end years of the various *aetates* did not always agree with the duration of each *aetas* as proposed by Heimo.

Table 62

<i>Aetates</i>	<i>Heimo's Reckoning</i>		<i>Corrected Reckoning</i>	
	<i>Duration</i>	<i>AM</i>	<i>Duration</i>	<i>AM</i>
<i>Aetas I</i>	1656	AM 1 – AM 1656	1656	AM 1 – AM 1657
<i>Aetas II</i>	367	AM 1657 – AM 2022	367	AM 1658 – AM 2024
<i>Aetas III</i>	866	AM 2023 – AM 2890	866	AM 2025 – AM 2890
<i>Aetas IV</i>	473	AM 2891 – AM 3363	473	AM 2891 – AM 3363
<i>Aetas V</i>	662	AM 3364 – AM 4025	662	AM 3364 – AM 4025
<i>Aetates I–V</i>	4024	AM 1 – AM 4025	4024	AM 1 – AM 4025

Liber septimus: Testamentum humanae reparationis et liberationis

At the beginning of his seventh and last book, Heimo looks back at the pre-Christian period of 4025 years, which he had distilled both from the biblical lists of generations and from chronographical data contained in secular sources.⁵²⁸ The fact that the first year of the Christian period (AM 4026) had Jewish epact 11 and Jewish concurrent 5 confirmed in Heimo's view the validity of his calculations.⁵²⁹

AUC number does not change until 22 April, the day of the foundation of Rome: Heimo of Bamberg, *Consideratio annorum*, 2:2. The Roman indiction changes on 25 December of the previous year: Strubbe and Voet, *De chronologie van de Middeleeuwen*, p. 64.

⁵²⁶ Munich, MS Clm. 18769, fol. 106^v: 'AM 4023: Ihesus Christus baptizatur ab Johanne viii id. ian.'

⁵²⁷ Munich, MS Clm. 18769, fol. 106^v: 'AM 4025: Finitur testamentum humanae servitutis et miseriae, contractum in obedientiamade.'

⁵²⁸ Munich, MS Clm. 18769, fol. 106^v: 'Videsne diligens lector quam plane ac directum post transactos ab inicio seculi annos m̄iixv enumeratos per spacia patrum principum familiarum secundum canonem veteris testamenti ac attestatione secularium historiarum.'

⁵²⁹ Munich, MS Clm. 18769, fol. 106^v: 'occurrant xi epacte, que est luna xiiia kal. apr. secundum Iudeos, et v concurrentes, que est xvi kal. apr. ubi Iudei ponunt sedem concurrentium'. According to Jewish chronology the epacts change on 21 March (instead of 22 March) and the concurrents on 17 March (instead of 24 March).

According to this calculation Christ's Passion and Resurrection fell in complete accordance with the Latin tradition, namely on Friday 25 March (luna xv) and on Sunday 27 March (luna xvii).⁵³⁰

Heimo subsequently repeats the calculations from the epilogue of his fifth book and for these 4025 years counts from the Creation of the world to the Passion of Christ well over 211 nineteen-year lunar cycles ($211 \times 19 + 16 = 4025$), over 143 twenty-eight-year solar cycles ($143 \times 28 + 21 = 4025$), and over seven 532-year luni-solar cycles ($7 \times 532 + 301 = 4025$).⁵³¹ He emphasizes once again the crucial fact that the sixth *aetas* in his view did not begin with Christ's Birth, but rather in the year of His Passion.⁵³² Ultimately a seventh *aetas* would follow the Last Judgement.⁵³³

Somewhat further on in this seventh book we find the important period of the six Eastern Roman emperors, namely from Zeno (d. 491) up to and including Tiberius II (d. 582). Although in his fifth book Heimo had shown a preference for the first hypothesis, that is, to attribute to Justin I a reign of forty years, in this second instance he opts somewhat surprisingly for the third hypothesis.⁵³⁴ He

⁵³⁰ Munich, MS Clm. 18769, fol. 106^v: 'occurratque nihilominus luna primi mensis xva in feria via viii kal. apr. in ipsa die qua secundum auctoritatem sanctorum patrum et fidem evangeliorum Dominus Ihesus Christus passus [est], humanum genus de regno peccati et mortis aeternae sua morte redemit, et xviia luna in prima feria vi kal. apr. quando resurgens omnibus fidelibus aeternitatis aditum patefecitur'. See also pseudo-Jerome of Strido, *Martyrologium Hieronymianum*, (25 March); Augustine of Hippo, *De civitate Dei*, 18:54; Augustine of Hippo, *De trinitate*, 4:5; and Augustine of Hippo, *Quaestiones in Heptateuchum*, 2:90.

⁵³¹ Munich, MS Clm. 18769, fol. 106^v: 'Transacti sunt decennovales cycli ccxi et xvi anni, solares cycli cxliii et xxi anni, cycli magni vii et ccc et i annus a principio mundi usque ad passionem Domini.'

⁵³² Munich, MS Clm. 18769, fol. 106^v: 'Decursis quinque etatibus quarum prima clauditur annis idclvi, secunda ccclxvii, tercia dccclxviii, quarta cccclxxiii, quinta dclxii, sexta etas eius non in nativitate ut plerique estimant, sed in ipsa passione vel resurrectione dominice inchoatur.'

⁵³³ Munich, MS Clm. 18769, fol. 106^v: 'Quam scilicet sextam etatem septima que est requiescentium animarum comitatur, et utraque simul in fine mundi instante, communi omnium resurrectione terminabitur.'

⁵³⁴ Munich, MS Clm. 18769, fols 114^r–116^r: '443 VA: Zeno regnavit annos xvii [. . .] 460 VA: Anastasius regnavit annos xxxviiitem [. . .] 497 VA: Iustinus rex regnavit annos xxix [. . .] 526 VA: Iustinianus Iustini ex sorore nepos regnavit annos xxxviiiito, menses viiitem, dies xiiicim [. . .] 564 VA: Iustinus minor regnavit annos xi [. . .] 575 VA: Tiberius regnavit annos vii.' In his fourth book Heimo was nevertheless not prepared to agree entirely with this third hypothesis: 'Illi quoque non repugno, sed propius consentio non tamen prorsus aquiesco' (Heimo of Bamberg, *Consideratio annorum*, 4:5).

additionally provides as well the important obituary data of Martin of Tours (366 VA) and Benedict of Nursia (509 VA).⁵³⁵ Even the death of Heimo himself was entered, namely on 31 July 1139 VA.⁵³⁶

Finally, Heimo's plea to note important events in future years was answered, for several readers did indeed fill out his chronological tables and they did so up to 1471 VA. Following the final year of this impressive series of chronological tables (AM 5620 = 1595 VA) he notes the possibility of following this series with new 532-year luni-solar cycles.⁵³⁷ With his chronological corrections Heimo was not attempting to postpone the fixed end of the world, but rather to express his gratefulness to Christ the Saviour.⁵³⁸ Just as he had done in the epilogue to Book V, Heimo finally asks to be included in the prayers of his dear readers so that he, too, might join the heavenly kingdom.⁵³⁹

Conclusion

At the Intersection of Chronology, Chronography, and Exegesis

Heimo of Bamberg's chronicle constitutes the ultimate witness to the sophisticated chronological and chronographical activities in the then cathedral city. In a comprehensive work Heimo sought to recalculate and rewrite history, taking as his

⁵³⁵ Munich, MS Clm. 18769, fols 112^v–115^r: '366 VA: Sanctus Martinus Turonensis migravit a seculo [...] 509 VA: Sanctus Benedictus xii kal. apr. in vigilia paschae migravit ad Christum.' With this dating of the death of Martin (366 VA) Heimo is off by one year with the dating in his fourth book (367 VA): Heimo of Bamberg, *Consideratio annorum*, 4:1 and 5.

⁵³⁶ Munich, MS Clm. 18769, fol. 125^r: '1139 VA: Heimo auctor istius operis obiit ii kal. aug.'

⁵³⁷ Munich, MS Clm. 18769, fol. 132^r: '1595 VA: Hic finitur tercius magnus paschalis cyclus a passione Domini. Post cuius completionem, si cui forte tunc placuerit, superaddat illi quantum sibi collibuerit.'

⁵³⁸ Munich, MS Clm. 18769, fol. 132^r: 'memor tamen quam diu fuerit, quid et quantum pro libertatis et reparationis sue dignitate debeat redemptori suo Christo Ihesu, cuius regnum et imperium non ideo antiquatur quia finis mundi prolongatur, nec propterea senescit, quia numerus annorum eius temporaliter accedendo et decedendo crescit, sed in eternum stabit, et sibi per fidem et conformitatem adherentes de die in diem renovans et in agnitionem eius transferens, tandem secum corregnare faciet in aeternum'.

⁵³⁹ Munich, MS Clm. 18769, fol. 132^r: 'Et vos fratres dilectissimi non cessetis orare pro me, ut ereptus de lacu miserie et de luto fecis mundane, huius regni et societatis sanctorum particeps fieri merear.' See also Heimo of Bamberg, *Consideratio annorum*, 5:12 (epilogue).

central pivoting point the dating of Christ's Passion (AM 4026 = AD 1 = 34 VA). Like most of his predecessors he defended the Latin tradition when it came to the calendar day of Christ's Passion (25 March), and for this he relied on the authoritative Church Fathers Jerome of Strido and Augustine of Hippo. The uniqueness of Heimo's chronological correction lies, however, in his reinterpretation of the lunar parameter that Christ was crucified on luna xv. He argued that the moon at sunset on the evening of Christ's Passion had changed from luna xiv to luna xv, so that Christ according to the Jews was crucified on luna xv and according to the Greco-Roman chronology on luna xiv.⁵⁴⁰ Consequently the chronological parameters for the year of Christ's Passion fell thirty-three years earlier, that is, precisely in the Dionysian year of Christ's Birth (AD 1).

The entire structure of Heimo's chronicle is built around this recalculation of the year of Christ's Passion. The first three books deal with the pre-Christian period and constitute triple proof that no fewer than forty years are missing in Bede's Hebrew Creation era (AM 4026 instead of AM 3985). In the first book Heimo counts 4025 years between the chronological parameters of the date of the Creation of the world (AM 1) and that of the year of Christ's Passion (AM 4026). At the same time he calculates the duration of the fifth *aetas* at 662 years and thereby corrects such authorities as Eusebius of Caesarea (625), Julius Africanus (660), and Flavius Josephus (668). The second book comprises a chronographical supplement using non-Christian sources. There Heimo likewise counts 662 years from the advent of the Persian empire to the eighteenth regnal year of Tiberius. In addition to such chronological and chronographical arguments, Heimo devoted considerable attention in his third book to a new exegetical interpretation of the seventy prophetic weeks from the book of Daniel. Here, however, he frequently had to adjust the numbers in order to arrive at the desired results. Heimo counts one prophetic week as a period of eight days, seven weeks of fifty days each, seven months, and seven years. In this way he ultimately arrived at a total of almost 592 years from the end of the Babylonian exile on 4 April (luna xxix) to Christ's Passion on 25 March (luna xv).

Following this triple analysis of the pre-Christian period and the fifth *aetas* in particular, in his next two books Heimo studies the period after Christ's Passion.

⁵⁴⁰ Heimo is arguing from the criterion that the age of the moon according to the Jewish interpretation belongs to the day in the evening of which the moon rises. He thus ignores the historical fact that the Jews change their age of the moon at the moment the sun sets on the previous day. Incorporating this historical principle would have rendered Heimo's chronological correction impossible.

Heimo concludes that thirty-three years were missing ($AD\ 34 = 1\ VA$ and $AD\ 1135 = 1135\ VA$), and in the fourth book he draws the conclusion that this *interceptio* must have occurred during the relatively brief period from Zeno up to and including Tiberius II. He develops three different hypotheses to account for this, of which only the first and last meet two extra criteria, namely (1) that Benedict of Nursia had died during the reign of Justin I (509 VA), and (2) that the eighth regnal year of Justinian I coincided with a new 532-year cycle ($1\ VA + 532 = 533\ VA$). Heimo felt compelled, however, in a fifth book to shore up the theory of thirty-three missing years further with the aid of pontifical years. In the process he stumbled upon corrupt data in the *Liber pontificalis*, but in fact this worked to his advantage because these contradictions provided him with sufficient leeway to be able to work towards his desired results.⁵⁴¹ Via a system of nine anchor points Heimo finally came to the conclusion that according to the pontifical reckoning, as well, 1134 years had elapsed since Christ's Passion ($1\ VA + 1134 = 1135\ VA$).

Ultimately these first five books may be regarded as a commentary on the extensive series of chronological tables that Heimo presents in his sixth and seventh books. Therein he collects previous analyses and calculations. When necessary he would provide a slight adjust, as for example with the year of Martin of Tours's death (366 VA instead of 367 VA). Contrary to what he had done in Book IV, Heimo here opts for the third hypothesis in order to supply chronographically the thirty-three missing years.

Between Divine Inspiration and Human Fallibility

Heimo did not derive inspiration from any of his predecessors. In his otherwise impressive bibliographical arsenal we find no identifiable influence of Abbo of Fleury, Marianus Scottus, or Sigebert of Gembloux. On the other hand there is a striking number of integral similarities and differences between Heimo and the latter two authors. Like Sigebert, Heimo linked the duration of the seventy prophetic weeks to Jewish history in order to lend weight to his correction of the Hebrew Creation era.⁵⁴² Moreover, Sigebert had also turned to Moses on many occasions

⁵⁴¹ Heimo himself used the revealing term *moderari*: Heimo of Bamberg, *Consideratio annorum*, 5:1.

⁵⁴² Sigebert of Gembloux, *Liber decennalis*, 3:43–56, and Heimo of Bamberg, *Consideratio annorum*, 3:1–13.

in order to lend his theories the necessary authority.⁵⁴³ In his use of the chronicle genre, Heimo, like Marianus, found himself at the intersection of chronology and chronography. He explicitly asked permission to do so from his fellow brethren.⁵⁴⁴ Heimo wanted to construct a comprehensive chronological framework starting at the Creation of the world and extending through the Passion of Christ up to his own day. Unlike Marianus, however, he was more of a chronographer than a chronologist. This explains among other things his principle, unlike Marianus, of not defining pre-temporal years.⁵⁴⁵ It is also striking that Heimo nowhere explicitly borrows from the chronological works of either Dionysius Exiguus or the Venerable Bede.⁵⁴⁶

By Heimo's own testimony he drew his inspiration and knowledge from God Himself.⁵⁴⁷ He saw himself, then, not so much as a critical intellectual or innovator, but rather as an almost accidental witness of God's inspiration. By writing his chronicle he expresses his thanks to Christ, who had brought salvation to mankind at a crucial moment in world history.⁵⁴⁸ This less than self-assured, even humble attitude may explain why Heimo disagreed as little as possible with authoritative authors. Sometimes, however, a confrontation was unavoidable. In the first case he took great pains to exonerate Eusebius of Caesarea and the Venerable Bede of any possible blame.⁵⁴⁹ Further on in that same first book Heimo, however, distances himself from both authors by calculating 662 years as the duration of the fifth *aetas*. This was the only acceptable compromise between Eusebius of Caesarea (625), Julius Africanus (660), and Flavius Josephus (668).⁵⁵⁰ In the third book, finally, he reproached Eusebius of Caesarea and Julius Africanus for interpreting the seventy prophetic weeks in a far too simplistic manner.⁵⁵¹

⁵⁴³ Sigebert of Gembloux, *Liber decennalis*, 1:103–07 and 117–19, and Heimo of Bamberg, *Consideratio annorum*, 1:2, 3:13, and 5:11.

⁵⁴⁴ Marianus Scottus, *Resurrectionis Christi inquisitionis*, and Heimo of Bamberg, *Consideratio annorum*, Prologus editionis prioris.

⁵⁴⁵ Marianus Scottus, *Chronicon*, 1:8, and Heimo of Bamberg, *Consideratio annorum*, 5:12 (epilogue).

⁵⁴⁶ Heimo only refers to Bede explicitly with respect to his Hebrew Creation era (AM 3952).

⁵⁴⁷ Like Abbo of Fleury, Heimo used the term *parvitas* in order to minimize the originality of his own correction: Heimo of Bamberg, *Consideratio annorum*, 3:11.

⁵⁴⁸ Heimo of Bamberg, *Consideratio annorum*, 5:12 (epilogue).

⁵⁴⁹ Heimo of Bamberg, *Consideratio annorum*, 1:6.

⁵⁵⁰ Heimo of Bamberg, *Consideratio annorum*, 1:13.

⁵⁵¹ Heimo of Bamberg, *Consideratio annorum*, 3:4.

Despite his explicit reference to divine inspiration Heimo did not fail to employ his critical attitude now and again. He refused to incorporate uncertain source material in his calculations.⁵⁵² For arithmetical problems in the pre-Christian period, moreover, he had devised a made-to-measure solution. If the new generation was born in the second half of a given year of his father, then that year was attributed to the father. In the other case the year would be counted towards the new generation.⁵⁵³ For the Christian period, too, Heimo used very simple and practical criteria. The year of death of each pope belonged to the preceding pontificate, but on the other hand every possible period of *sedis vacatio* was counted towards the pontificate immediately following.⁵⁵⁴ We find another strikingly practical argument in Heimo's fourth book. There he notes the paleographical similarity between the numerals eleven (xi) and forty (xl) in order thus to account for a significant portion of the thirty-three missing years.⁵⁵⁵

Heimo was aware of the sensitive nature of his chronicle and emphatically asked Burchard to comment critically on the first version. Numerous passages clearly reveal that Heimo did not ignore the feedback of Burchard and Dudo. In the third book, for example, he even quoted a number of critical comments in their entirety.⁵⁵⁶ Heimo parried this rational criticism with a double argument. On the one hand, divine inspiration had compelled him to record the truth, and on the other Moses and the prophets had not always recorded their undoubtedly correct temporal measurements in great detail.⁵⁵⁷ The question of the thirty-three missing years in the reigns of six Eastern Roman emperors was a different matter. In Book IV Heimo expresses a clear preference for attributing forty years to Justin I. Heimo describes a second and a third possible hypothesis, however, whereby he clearly indicates that he does not fully support them. And yet ultimately in Book VII he declares himself in favour of the third hypothesis.

Throughout the entire chronicle it is striking how systematically Heimo checks each and every calculation for accuracy. He clearly wanted to leave nothing to chance and did not dismiss any possibility in advance. Thus Heimo calculates the length of the pre-Christian period based both on Judeo-Christian as well as pagan

⁵⁵² Heimo of Bamberg, *Consideratio annorum*, 2:3.

⁵⁵³ Heimo of Bamberg, *Consideratio annorum*, 3:13.

⁵⁵⁴ Heimo of Bamberg, *Consideratio annorum*, 5:1.

⁵⁵⁵ Heimo of Bamberg, *Consideratio annorum*, 4:5.

⁵⁵⁶ Heimo of Bamberg, *Consideratio annorum*, 3:12.

⁵⁵⁷ Heimo of Bamberg, *Consideratio annorum*, 3:11 and 13.

sources.⁵⁵⁸ For the Christian period, too, he employs a dual method of counting regnal years and pontifical years.⁵⁵⁹ Finally, in Book III Heimo examines every interpretation of the seventy prophetic weeks from both a solar and a lunar perspective.⁵⁶⁰ Despite this systematic and sometimes 'robotic' approach, Heimo was more than once compelled to adjust the numbers in order to arrive at the desired results. The clearest example of this is without doubt the recalculation of the corrupted pontifical years in the *Liber pontificalis*.⁵⁶¹ Despite his sporadic manipulations of the numbers, Heimo remained conscious of the fact that his chronological and chronographical calculations were not entirely sound. He remained convinced that he was in the right, but at the same time he acknowledged that some details of his analysis were open to improvement.⁵⁶² In this chronicle, then, Heimo frequently hovers between divine inspiration and human fallibility.

Concerning the influence of Heimo's chronological theories we may be relatively brief. They constitute the end point of a tradition that can be traced back to Reichenau, and which saw in the chronicle of Frutolf a flourishing continuation in Bamberg, as well. The number of surviving manuscripts of Heimo's chronicle is extraordinarily small, however. As was the case with Marianus, an explanation should probably be sought in the complexity and high degree of abstraction of Heimo's analyses and calculations. Unlike Marianus, however, no trace of Heimo's work is found in other chronicles. Nevertheless his chronicle reveals an active network involving Bamberg chronologists and chronographers, the most prominent of whom were Frutolf, Thiemo, Bernardus Hispanicus, Burchard, Dudo, and Heimo himself. Heimo's *Consideratio annorum seculi et Christi Iesu* therefore constitutes a rare witness to the intellectual life in Bamberg in the first half of the twelfth century.

⁵⁵⁸ Heimo of Bamberg, *Consideratio annorum*, 1:11–16 and 2:1–7.

⁵⁵⁹ Heimo of Bamberg, *Consideratio annorum*, 4:1–5 and 5:1–11.

⁵⁶⁰ Heimo of Bamberg, *Consideratio annorum*, 3:7–9.

⁵⁶¹ Heimo of Bamberg, *Consideratio annorum*, 5:2–10.

⁵⁶² Heimo of Bamberg, *Consideratio annorum*, 5:11: 'Cum non possem puram rerum veritatem per omnia servare quanto magis tamen potui.'

CONCLUSION

The French scholar Emmanuel Poulle rightly points out the impossibility of discovering the date of Christ's Birth using currently known source materials.¹ Nevertheless, from the end of the tenth century to the middle of the twelfth at least eight authors took on this challenge based on the chronological principles of a 532-year luni-solar cycle. These corrections never caught on in practice, however, so that the Western world continued to count according to the Incarnation era of Dionysius Exiguus. This fact 'tempted' a number of authors to minimize the importance of these corrections or even to discount them entirely within the realm of medieval historiography.² This reasoning seems logical, but can we or should we measure the value of these texts only by their feeble impact? No, because the corrections studied here constitute severely underestimated sources of information on medieval chronology and intellectual culture of the time. It is moreover very likely that the actual number of recorded corrections exceeds these eight texts gathered here. Some are irrevocably lost, others may still be awaiting discovery by the serendipitous reader in the archives. It is unfortunately a Herculean task to attempt to check systematically the thousands of often poorly studied chronological manuscripts from the Middle Ages for the presence of an as yet unknown chronological correction of the Dionysian era. Nevertheless, based on the eight corrections studied here, we have been able to achieve innovative results.

¹ Emmanuel Poulle, 'Deux mille ans, environ', *Académie des inscriptions et belles-lettres*, series 4, 4 (1999), 1225–38 (p. 1238): 'Il y a tant d'incertitudes dans toutes ces supputations [...] qu'il me paraît raisonnable de conclure à l'impossibilité d'une détermination précise de la date de l'ère de l'Incarnation.'

² See, for example, Poule, 'Deux mille ans', p. 1227, and Strubbe and Voet, *De chronologie van de Middeleeuwen*, p. 66.

The significance of this study lies primarily on two levels. As the great majority of these chronological corrections have until now at best been incompletely studied, the systematically executed technical analyses reveal for the first time the sometimes staggering logic used to create a corrected era.³ Not infrequently such a correction was integrated into a coherent time frame that began with the date of the Creation of the world (AM 1). Moreover these texts have proven to be suited to an analysis of medieval intellectuals. This study has shown, after all, that the discipline of chronology has played an important and even pioneering role in the growth towards intellectual autonomy. In this general conclusion we will elucidate the most important results for both levels.

A Technical Analysis

In every one of the eight case studies examined here, the key element of the correction was the recalculation of the date of Christ's Passion. A majority of the authors (Abbo, Marianus, Sigebert, Hezelo, and Anonymous of Limoges) opted for the Latin tradition and dated Christ's Passion to AD 12 (13/532). Heimo also opted for this tradition, but due to his reinterpretation of the lunar parameter he shifted Christ's Passion to AD 1 (2/532). The numerical preponderance of the Latin tradition is hardly surprising. These corrections were carried out in the Latin West. Moreover, it is simply easier to add new years to an existing era than it is to delete years, along with their accompanying historiographical data. Only two authors (Heriger and Gerland) opted ultimately for the Greek tradition and dated Christ's Passion to AD 42 (43/532).

Table 63

	<i>LT/GT</i>	<i>Passion of Christ</i>	<i>Resurrection of Christ</i>	<i>AD</i>
Heriger	GT	23 March (luna xv)	25 March (luna xvii)	AD 42
Abbo	LT	25 March (luna xv)	27 March (luna xvii)	AD 12
Marianus	LT	25 March (luna xv)	27 March (luna xvii)	AD 12
Gerland	GT	23 March (luna xv)	25 March (luna xvii)	AD 42
Sigebert	LT	25 March (luna xv)	27 March (luna xvii)	AD 12
Hezelo	LT	25 March (luna xv)	27 March (luna xvii)	AD 12
anon. Limoges	LT	25 March (luna xv)	27 March (luna xvii)	AD 12
Heimo	LT	25 March (luna xiv)	27 March (luna xvi)	AD 1

³ The only exception is the detailed analysis by Wiesenbach, 'Der "Liber decennalis" im Rahmen der mittelalterlichen Komputistik'.

The dating of Christ's Birth was not determined by chronological parameters, but was rather the result of a recalculation of the date of Christ's Passion. The only variable was thus the age attributed by each author to Christ at the moment of His Passion. It is striking in this regard that among the eight authors we encounter three different traditions. The majority (Heriger, Marianus, Hezelo, Anonymous of Limoges, and Heimo) counted thirty-three years from the date of Christ's Birth to His Passion (34 VA). Two authors (Abbo and Sigebert) calculated one year less for the same period (33 VA), and Gerland one year more (35 VA).

Table 64

	LT/GT	Date of Christ's Passion		Date of Christ's Birth		difference
Heriger	GT	AD 42	34 VA	AD 9	1 VA	-33
Abbo	LT	AD 12	33 VA	21 BC	1 VA	-32
Marianus	LT	AD 12	34 VA	22 BC	1 VA	-33
Gerland	GT	AD 42	35 VA	AD 8	1 VA	-34
Sigebert	LT	AD 12	33 VA	21 BC	1 VA	-32
Hezelo	LT	AD 12	34 VA	22 BC	1 VA	-33
anon. Limoges	LT	AD 12	34 VA	22 BC	1 VA	-33
Heimo	LT	AD 1	34 VA	33 BC	1 VA	-33

Four of the eight authors also at least attempted to link the date of Christ's Birth and Passion with the date of the Creation of the world. It is remarkable that these four authors each used a different method to date Creation in a 532-year luni-solar cycle.⁴ Abbo dated the Creation of the world consistently in the 149th year of a 532-year cycle (AM 1 = 149/532). He next linked this chronological fact with the Eusebian Creation era (AM 5199 = 27/532), which led to the provisional result that Christ was born in AD 26. Abbo also attempted to link this result to a chronologically acceptable date of Christ's Passion, but without success. Ultimately no common chronological relation between the date of the Creation of the world and Christ's Passion was incorporated into Abbo's final and definite correction of twenty-one years.

Three authors (Marianus, Sigebert, and Heimo), however, were successful in this endeavour. Marianus situated the date of the Creation of the world in the fifty-fourth year of a 532-year cycle (AM 1 = 54/532). Based partly on this anchor

⁴ Moreover we encounter in the so-called *Tabula Gerlandi* the rather detached observation that 'according to some' the world was created in the 312th year of a 532-year cycle (AM 1 = 312/532): 'Primus annus saeculi secundum quosdam' (Gerland the Computist, *De computo*, *Tabula Gerlandi*). It is however uncertain whether this remark comes from Gerland himself and also whether he held this opinion.

point he recalculated the date of Christ's Birth (AM 4183 = 512/532) and His Passion (AM 4216 = 13/532). Sigebert followed the same reasoning, but proceeded from a different point of departure (AM 1 = 278/532). Consequently he arrived at different results for the date of Christ's Birth (AM 3960 = 513/532) and His Passion (AM 3992 = 13/532). Heimo's data on the date of the Creation of the world are not easily recovered from his chronicle. We do know, however, that he dated Christ's Passion in the second year of a 532-year cycle (AM 4026 = 2/532). Consequently we can locate the date of Christ's Birth in the 501st year of a 532-year cycle (AM 3993 = 501/532) and the date of the Creation of the world in the 233rd year of a 532-year cycle (AM 1 = 233/532). Among the three remaining authors (Heriger, Hezelo, and Anonymous of Limoges) no chronological data is to be found concerning the date of the Creation of the world. With Heriger we do find a possible indication, for in his letter to Hugo he explicitly writes that the truth is to be found amongst the Greeks.⁵ Because his correction of Dionysius's Incarnation era amounts to eight years (AD 9 = 1 VA), there is a parallel or comparable difference between the old Creation era of Julius Africanus (AM 5500) and the Byzantine Creation era derived from it (AM 5509). The question remains, however, whether Heriger meant to make such a comparison with this observation.

Table 65

	° <i>World</i>	° <i>Christ</i>	† <i>Christ</i>
Heriger	—	—	—
Abbo	AM 1 = 149/532	AM 5199 = 27/532	—
Marianus	AM 1 = 54/532	AM 4183 = 512/532	AM 4216 = 13/532
Gerland	[AM 1 = 312/532]	—	—
Sigebert	AM 1 = 278/532	AM 3960 = 513/532	AM 3992 = 13/532
Hezelo	—	—	—
anon. Limoges	—	—	—
Heimo	AM 1 = 233/532	AM 3993 = 501/532	AM 4026 = 2/532

All of the data presented above can also be summarized in the table below. This accentuates the similarities among the eight chronological corrections, but at the same time constitutes a striking illustration of the great degree of variety amongst them. With the exception of Hezelo and the anonymous author of Limoges, not a single correction is identical to another. This observation on an exclusively technical level thus reflects the original nature of these eight authors and their corrections.

⁵ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, p. 484: 'Sed veritas cum Graecis scienda.'

Table 66

	<i>Heriger</i>	<i>Abbo</i>	<i>Marianus</i>	<i>Gerland</i>	<i>Sigebert</i>	<i>Hezelo</i>	<i>anon. Limoges</i>	<i>Heimo</i>
Creation								
→ x/532	–	149/532	54/532	[312/532]	278/532	–	–	233/532
° Christ								
→ x/532	10/532	513/532	512/532	9/532	513/532	512/532	512/532	501/532
→ AM	–	–	AM 4183	–	AM 3960	–	–	AM 3993
→ AD	AD 9	21 BC	22 BC	AD 8	21 BC	22 BC	22 BC	33 BC
→ VA	1 VA	1 VA	1 VA	1 VA	1 VA	1 VA	1 VA	1 VA
† Christ								
→ x/532	43/532	13/532	13/532	43/532	13/532	13/532	13/532	2/532
→ AM	–	–	AM 4216	–	AM 3992	–	–	AM 4026
→ AD	AD 42	AD 12	AD 12	AD 42	AD 12	AD 12	AD 12	AD 1
→ VA	34 VA	33 VA	34 VA	35 VA	33 VA	34 VA	34 VA	34 VA

An Intellectual Analysis

At the outset of this study it was stressed that our express purpose has been to transcend the technical level. We wanted not only to make a contribution to the history and evolution of medieval chronology, but also to assess the influences of this discipline on the intellectual history of the late tenth and eleventh centuries. This period is not infrequently referred to as that of the ‘proto-scholastics’.⁶ And with this we touch immediately on an important issue, namely that this period has all too frequently been treated like a red-haired stepchild in the scholarship, like a ‘run-up’ to or a ‘foretaste’ of the following discerning and highly sophisticated scholastic discussions. Many historians and philosophers see in Peter Abelard (d. 1142), Thomas Aquinas (d. 1274), and even Petrarch (d. 1374) ideal authors with whom to develop their theories of the imminent individualism in the Middle Ages.⁷ The

⁶ Paul Saenger, *Space between Words: The Origin of Silent Reading*, Figurae: Reading Medieval Culture (Stanford, 1997), p. 143.

⁷ See among others Colin Morris, *The Discovery of the Individual, 1050–1200*, Church History Outlines, 5 (London, 1972); Aron I. Gurevich and Katherine Judelson, *The Origins of European Individualism*, Making of Europe (Oxford, 1995); and various articles in the collection by Jan A. Aertsen and Andreas Speer, *Individuum und Individualität im Mittelalter*, Miscellanea Mediaevalia: Veröffentlichungen des Thomas-Instituts der Universität zu Köln, 24 (Berlin, 1996).

few studies to apply such theories to the tenth and eleventh centuries never made use of the sources incorporated in this study.⁸

This state of affairs is brought about not just by the fact that these corrections took place for the most part before the heyday of scholasticism (1150–1250), but also by the limited access to and high degree of difficulty of these chronological texts. The regrettable conclusion follows from this that medieval chronological sources have simply not been incorporated into the scholarship on the emergent individualism. Consequently it was seen as a fundamental necessity to fill this gap. In the process we have focused mainly on the relative value of on the one hand the authority of tradition, erroneous or otherwise, and on the other the rational reasoning of chronology. The field of tension between these elements of knowledge is a characteristic part of the chronological corrections studied here and therefore constitutes an excellent parameter with which to lay bare the shifts in the intellectual culture of the time (c. 990–1135).

It is nothing new to state that medieval intellectuals were bound to statements and positions of authoritative authors from the past. If a medieval author was convinced that a prominent *auctoritas* was wrong, then it was not sufficient to oppose it with his individual, unvarnished opinion. This kind of impertinence was simply not tolerated in medieval thought. It therefore comes as no surprise that the Latin tradition beat out the Greek amongst the majority of these chronological corrections. The Latin tradition boasted two *auctoritates* of the highest order, namely Jerome of Strido and Augustine of Hippo. Sigebert himself mentions an entire series of other authors who had explicitly stated their preference for this tradition.⁹ The Greek tradition, on the other hand, had to make do for the most part with a figure less well known in the West, Theophilus of Alexandria.¹⁰

⁸ Wilfried Hartmann, “‘Modernus’ und ‘Antiquus’: Zur Verbreitung und Bedeutung dieser Bezeichnungen in der wissenschaftlichen Literatur von 9. bis zum 12. Jahrhundert”, in *Antiqui und Moderni: Traditionsbewusstsein und Fortschrittsbewusstsein im späten Mittelalter*, ed. by Albert Zimmermann and Gudrun Vuillemin-Diem, *Miscellanea Mediaevalia: Veröffentlichungen des Thomas-Instituts der Universität zu Köln*, 9 (Berlin, 1974), pp. 21–39, restricts himself to an analysis of the terms ‘modernus’ and ‘antiquus’ for the ninth through the twelfth centuries. Tilman Struve, ‘Die Wende des 11. Jahrhunderts: Symptome eines Epochenwandels im Spiegel der Geschichtsschreibung’, *Historisches Jahrbuch im Auftrag der Görres Gesellschaft*, 112 (1992), 324–65, considers the eleventh century to be pivotal, but limits himself in his research to the investiture debate.

⁹ Sigebert of Gembloux, *Liber decennalis*, 3:4–16.

¹⁰ Gerland the Computist also attempted to put forward an interpolation in the *Liber pontificalis* as an authoritative source of this Greek tradition: Gerland the Computist, *De computo*, 1:24.

Thus well-considered or clever techniques were needed in order to avoid direct confrontations with authoritative authors from the past. A first possible approach was radical but efficient, namely the conscious failure to mention all contrary views. Thus Heriger mentions only Augustine to demonstrate that Christ was conceived and died on the very same calendar day, but for the rest fails to mention at all his marked preference for the Latin tradition. Nor do we find any trace of Jerome or Augustine with the other defender of the Greek tradition, Gerland. He undeservedly replaced these 'invulnerable' opponents with the less impressive *auctoritas* of Dionysius Exiguus. In so doing he failed to keep his promise to inform his reader about all existing theories.¹¹ On the other hand, Hezelo and the Anonymous of Limoges did not mention the theoretical possibility of the Greek tradition, but in their case it is not entirely clear whether they actually knew the Greek tradition. The conscious concealment of an opposing opinion is, however, definitely to be found in Abbo and Sigebert. Abbo could easily have found the data concerning the Greek tradition in Bede's *De temporum ratione* (ch. 47); Sigebert borrowed on several occasions from Heriger's letter, but suppressed entirely the latter's preference for the Greek tradition.¹²

Some authors, however, used a different strategy for invalidating an opposing view. They refuted the statements of an authoritative author with those of an equally great or greater *auctoritas*. Thus Marianus counters statements by Bede with texts erroneously attributed to Bede.¹³ We find a similar strategy with Sigebert. He circumvents Augustine's warning not to correct respected authorities by referring to an even greater source, namely the Bible (Matt. 7. 7).¹⁴ By referring to a pseudepigraphal text by John Chrysostom (d. 407) he could moreover demonstrate that even Greek authors had converted to the Latin tradition.¹⁵ Abbo, on the other hand, shied away from the consequences of such a confrontation. He did not dare to disturb the existing chronographical traditions, namely that of the Septuagint reckoning (AM 5199) and the Hebrew verity (AM 3952), and limited himself to integrating these traditions into his *Laterculus posterior*. Nonetheless, already in

¹¹ Gerland the Computist, *De computo*, 1:24: 'Vnde quia ualde diuersorum sententiae discordant colligenda est ipsa controuersia ut lector cui potissimum faueat iudicio inexpugnabili reperiat.'

¹² Sigebert of Gembloux, *Liber decennalis*, 2:27, and Sigebert of Gembloux, *Catalogus de viris illustribus*, ch. 138.

¹³ Marianus Scottus, *Chronicon*, 1:6–7 and 2:22.

¹⁴ Sigebert of Gembloux, *Liber decennalis*, 1:46.

¹⁵ Sigebert of Gembloux, *Liber decennalis*, 3:16.

1000 he had calculated that according to the Eusebian Creation era Christ was born in AD 26 (AM 5199 = 27/532). Consequently he could readily incorporate this fact into his later chronological correction of twenty-one years (1 VA = 513/532). Such an integration automatically would entail, however, a correction of the Eusebian Septuagint reckoning, as well. Later on Marianus, Sigebert, and Heimo would dare to take this step.

All of these authors were bound by the *auctoritas* model, but at the same time they relied upon the rationality of medieval chronology. This discipline arrived at its own results, which were entirely separate from every other source of authority. The luni-solar functionality of a 532-year cycle constituted an essential part of every chronological correction. Like an authoritative statement from the past, the rational results of these calculations were difficult if not impossible to refute. It is therefore highly remarkable that several authors (Abbo, Gerland, Sigebert, and Heimo) often used the terms *natura* or *ratio naturalis* in their arguments. By this they meant an established fact that could not be altered by man. It was no coincidence that Gerland called the second part of his chronological handbook a *computus naturalis*. It was at odds with the first part (*computus usualis*), in which he took into consideration the statements of authoritative authors from the past.¹⁶

This example shows clearly that both sources of knowledge operated at different levels, but could still be applied to one and the same subject. This created an inevitable field of tension between authority and reason, and most authors felt the need to bridge this field. To this end they often relied on the 'gospel verity'. This is an important term in this chronological context, because only a heretic would dare to doubt the absolute and inviolable truth of the Gospels.¹⁷ On the other hand this term does not cover all of the overtones in terms of contents. From the Gospels one could after all discern only implicitly the age of the moon and the day of the week with respect to Christ's Passion. But the particular calendar day of His Passion could in no way be determined by means of the gospel data, and was thus only the product of later traditions. Every author chose either the Latin or the Greek tradition and subsequently carried out the necessary chronological calculations in order to recalculate the date of Christ's Passion. The final result was then presented under the authoritative cover of the gospel verity. In other words, this term

¹⁶ Gerland the Computist, *De computo*, Prologus libri secundi: 'Et in superiori quidem partim naturam partim auctoritatem fuimus secuti. Hic uero computum dumtaxat naturalem explanare intendimus.'

¹⁷ Marianus Scottus, *Chronicon*, 1:2 (Vatican City, BaV, MS Palatinus 830, fol. 32'): 'Quis huic verbo veritatis potest contradicere nisi hereticus?'

conceals a partially rational contents, and this makes it so appropriate as a coordinating concept with which to bridge the field of tension between authority and reason.

In the chronological corrections of Hezelo and the Anonymous of Limoges this tension is never explicitly expressed. They restrict themselves to the presentation of the chronological calculation and consequently correct the Christian era of Dionysius Exiguus according to stringent chronological principles. With Heriger and Abbo there are only indirect indications of tension between tradition and reason. Heriger refers to the symbolic scheme in which Christ and John were both conceived and died at the moments of the Julian equinoxes and solstices (viii kal.), but at the same time he provided this authoritative argument with a temporal dimension. He argues that this symbolic scheme was conceived before the council of Nicaea (325).¹⁸ In other words, at that point in time they would not have been able to avail themselves of the Nicaean equinoxes and solstices (xii kal.). The symbolic scheme was thus not an absolute, but rather relative with respect to the historical context. Heriger did not, however, condemn the tradition by means of reason. He merely provided a rational explanation for the existence of an erroneous tradition. A similar connection between tradition and reason is to be found in Heriger's contemporary Abbo. This author made a correction to Dionysius's Incarnation era based on the authority of the Gospels and historiographical sources, but claimed to be able to do so without disputing the authority of Dionysius Exiguus himself.¹⁹ Thus the one argument outstripped the other without giving expression to an explicit condemnation. Sigebert, too, made a case for extenuating circumstances by claiming that Dionysius did not have the intention of lying and had thus been misled.²⁰ Sigebert's correction was thus not an attack against Dionysius personally, but on the other hand he did regard the latter's era to be an aberration (*error*), a carelessness (*inconsiderate*), a falsity (*falsitas*), and even a lie (*mendacium*).²¹

¹⁸ Heriger of Lobbes, *Epistola ad Hugonem*, ed. by Cordoliani, p. 484: 'Nam qui ipsa aequinoctia in viii kal. putaverunt, ipsi easdem festivitates ibidem assignaverunt.'

¹⁹ Abbo of Fleury, *Epistola prima ad Geraldum et Vitalem*, Berlin, MS Phill. 1833, fol. 56v: 'Nec id dicens auctoritatem tanti viri refello, sed historiarum et evangeliorum fidei quae Adam reverentia magis assensum praebeo.'

²⁰ Sigebert of Gembloux, *Liber decennalis*, 1:24. He used this argument from intention also to legitimate his correction of the Creation eras of Eusebius and Bede: Sigebert of Gembloux, *Liber decennalis*, 2:23.

²¹ Sigebert of Gembloux, *Liber decennalis*, 1:23 and 34; 2:7, 21, and 26–27; 3:7, 58–60; and Sigebert of Gembloux, *Catalogus de viris illustribus*, ch. 27.

Marianus and Gerland were less reconciliatory than Heriger and Abbo. Marianus saw his correction as an apology for the gospel verity and consciously distanced himself from the Dionysian era and all those who followed this mendacious tradition.²² Nor did Gerland have much sympathy for Dionysius and his followers (*fautores*), but at the same time he refuted every possible criticism of the authoritative Bede.²³ Both elements are nonetheless difficult to reconcile with each other, because Bede was one of those most responsible for the success of Dionysius's Incarnation era. Heimo obviated the tension between authority of an erroneous tradition and rationality of his own chronological calculation in an entirely different way. He considered himself rather to be an almost coincidental witness to God's inspiration.²⁴ By this means he did not so much minimize the originality of his own contribution as he did his own contribution to originality.

Both elements of knowledge (authority and reason) caused a dialectical tension. They did not, however, have as their goal to correct, but rather to complement one another. Thus Marianus and Gerland explicitly availed themselves of both elements for their chronological corrections.²⁵ Robert of Hereford, too, made use in his *Excerptio de chronica Mariani* of a clear connection between the authority of the gospel sources on the one hand and the rational certainties of chronology on the other.²⁶ We find the most radical break between authority and reason in Sigebert's

²² Marianus Scottus, *Chronicon*, 3:554 (Vatican City, BaV, MS Palatinus 830, fol. 148^v): 'non tantum ut ostendimus mendacium cronicarum sed ut defendamus sacratissimam veritatem evangelicam, virosque catolicos aeclesiae qui post evangelium perhibent Dominum nostrum Ihesum Christum vi kal. apr. luna xvii a mortuis resurrexisse, id est Hieronimus et Augustinus'.

²³ Gerland the Computist, *De computo*, Prologus libri primi: 'Sepe uolumina domni Bede de scientia computandi replicans. et in eis quedam aliter quam traditio doctorum presentium ostenderet repperiens: dei fretus adiutorio deum inuocans preesse meo studio quae uisa mihi fuerunt utilissima. inde pro captu ingenioli mei deflorauit. et deflorata cum quibusdam aliunde conquisitis in unum congressi.'

²⁴ Heimo of Bamberg, *Consideratio annorum*, 3:11 (Munich, MS Clm. 18769, fol. 50^r): 'Denique hoc quod Domino donante inde audiueram, et tamen in nullo expositorum quem mea paruitas attigerat inveneram, sub terra defodere arguar, sed divinae super nos misericordiae et veritatis stillantis qualiscumque testis inueniar.'

²⁵ Marianus Scottus, *Resurrectionis Christi inquisitionis* (Vatican City, BaV, MS Palatinus 830, fol. 26^r): 'partim magistrata auctoritate, partim ratione ducente'; and Gerland the Computist, *De computo*, Prologus libri primi: 'partim auctoritati partim artis naturae'.

²⁶ Robert of Hereford, *Excerptio de chronica Mariani*, Prologus, ed. by Cordoliani, p. 340: 'Primum investigandum est ex auctoritate evangelistarum et aliorum doctorum quota feria, quota luna, quotis kalendis passio vel resurrectio contigerit dominica ut hoc computo hunc usque illuc vel illinc

Liber decennalis. There we read that no new knowledge is possible, because all knowledge must already have been recorded by some authoritative author from the past.²⁷ A close reading of this intellectual dialogue reveals, however, that this was not Sigebert's true belief. Like Heriger, in his third book he provides an argument from *auctoritas* with a temporal dimension. By comparing himself to Jerome — whose Vulgate reckoning had gained currency in medieval chronography thanks to Bede — Sigebert believed that his own corrected era would one day be employed in medieval chronology. In this way he obviated the tension between the authority of an erroneous tradition and his own rational correction of it.

Thus both arguments from authority and rational arguments were valid, as long as they conformed with the faith. For them faith thus became both starting and end point of a chronological correction. The truth was just a way to arrive at a deeper faith.²⁸ Heriger, Gerland, and Sigebert qualified the error in Dionysius's Incarnation era, precisely because it did not controvert the faith.²⁹ This did not mean, however, that these authors did not intend to bring their chronological correction into practice. Abbo and Marianus considered their own corrections to be fully fledged alternatives to Dionysius's era. Thanks to the influence of Marianus we find the use of a double Incarnation era in the British Isles, as well. Sigebert and Heimo went even one step further in constructing an exhaustive Easter table, from Creation to their own day, based exclusively on their own corrected era. Likewise Gerland did not employ the Dionysian era for his *Tabula Gerlandi*, but rather his own corrected reckoning.

And yet not a single one of these corrections ever really constituted a serious threat to the erroneous Dionysian era. The power of custom (*usus*) and the

usque huc certa computandi ratione secure deducamur. Et quoniam si omnibus inde tractantibus idem esset intellectus et ab omnibus idem voce consona confirmaretur insanum videretur tot et tantis contra in auctoritatibus etiam deviantibus ostendenda est dissensio historicorum et chronographorum ut diversarum et infirmarum repudiatione opinionum una non jam opinio sed scientia rationabiliter comprobatur, probabiliter confirmatur, firmiter teneatur.'

²⁷ Sigebert of Gembloux, *Liber decennalis*, 1:102, 1:123, and 2:1.

²⁸ The eleventh-century theologian Anselm of Canterbury (d. 1109) claimed in this context even that all of medieval philosophy had as its goal to elucidate the rationality of the Christian faith.

²⁹ Heriger of Lobbes, *Epistola ad quendam Hugonem monachum*, ed. by Cordoliani, p. 484: 'Consuetudo autem ecclesiarum, si non est contra fidem, nullo modo permutanda'; Gerland the Computist, *De computo*, 1:24: 'Queso ne temere irrideatur, quandoquidem contra fidem ut arbitror esse non conuincetur'; and Sigebert of Gembloux, *Liber decennalis*, 3:60: 'consuetudo autem ecclesiarum, si non est contra fidem, nullo modo permutetur, ne aliquis pusillorum Christi scandalizetur'.

practical difficulties involved in disseminating such a correction on a broad scale are the most important reasons for this.³⁰ Thus convention prevailed over correction. So it was that Annalista Saxo (d. after 1139) encountered a difference of almost three decades between a reckoning according to regnal years and one based on pontifical years. He leaves it to the reader to form his own preference, but cleverly remarks that neither reckoning agrees with the Dionysian era.³¹ Radulf of Diceto (d. 1202) and Jean de Saint-Victor (d. 1327) both also concurred with the large silent majority and opted for the erroneous tradition of Dionysius over the chronological correction of Marianus.³² Moreover, the discussion of this issue was also determined by two temporary and relatively exceptional circumstances, namely the approaching year 1000 and the return of the luni-solar parameters of the year of Christ's Passion according to the Latin tradition *c.* 1076 ($12 + 1064 = 1076$).

The changing intellectual culture is also an important factor in our attempt to account for the superseded nature of any given chronological correction. We find a symbolic illustration of this in Gerland. In the natural historical part of his *De computo* there is no trace to be found of his chronological correction, because by that point he had shifted to a different intellectual concept, namely that of *observator* (instead of *calculator*) and of *computus naturalis* (instead of *computus usualis*). Gerland was an exception to a contemporary rule, and yet he was a harbinger

³⁰ By way of comparison: in 1794 and 1795 the French government adopted for a brief time the use of a decimal clock with ten hours of a hundred minutes each to a day. Of all the unpopular changes that the metric system brought with it, this was the least popular. Only some progressive souls, however, had their clocks altered, but for the rest the decimal system of reckoning time was ignored. The law establishing decimal hours was repealed in April of 1795. The reason given was that replacing all the clocks in the country would be too expensive and that the decimal system of time-keeping was only of use to astronomers and not to common citizens.

³¹ Annalista Saxo, *Chronicon*, ed. by Georg Waitz, Monumenta Germaniae Historica, Scriptores, 6 (Stuttgart, 1968), pp. 542–777 (p. 553): 'Supercrescunt itaque anni pontificum annos principum Romanorum 29 annis. Quid horum potius sequendum sit, prudens lector videat. Illud tamen pro certo scitur, quod nec augustorum nec antistitum numerus annorum ciclis Dionisii concordat; siquidem in alio plus, in alio minus invenitur.'

³² Radulf of Diceto, *Abbreviationes chronicorum*, p. 19: 'Sed nos, si Lino, Cleto, conservemus honorem annorum in serie, sicut eis concorditer exhibent nostri patres in canone Missae, profecto possumus vitare ruinam'; and Jean de Saint-Victor, *Memoriale Historiarum*, pp. 530–31: 'Et in computatione annorum ab incarnatione Christi usque ad nos diversitas est inter Dionysii abbatis numerum et numerum Mariani Scoti et quorundam aliorum suam computationem dicentium convenire Euvangelice veritati. Si igitur in hiis maximis et fomisissimis numeris diversificantur magni, multo magis in aliis minoribus numeris debet cogitari posse quaedam contraria repperiri. In hoc autem opusculo numerus ponitur qui tenetur communius vel a pluribus approbatur.'

of the impending changes in the intellectual culture. More generally, the discipline of chronology constitutes an early yet clear barometer for evolutions in the medieval intellectual world. We can account for this in large part through the fact that it possessed a rationality all its own, which was expressed in the luni-solar functionality of a 532-year cycle.

This study has made a contribution to the effort to bridge the gap between the technical-chronological source material on the one hand, and scholarship concerning the development of the individual in the period under consideration here (c. 990–1135), on the other. The eight corrections constitute only a small part of medieval chronology, however. There is still a very long way to go. A first requirement is undoubtedly a critical survey of still unknown sources. In this respect we are on the right path. Arno Borst of Germany has recently published a number of chronological treatises from the Merovingian and Carolingian periods for publication. Alfred Lohr is preparing an edition of Gerland's *De computo*. Additionally, I am working with David Juste and Nadja Germann on a critical edition of Abbo's chronological oeuvre under the auspices of the Institut de Recherche et d'Histoire des Textes in Paris.

Chronology remains a technical discipline, which explains the unfortunate fact that up till now it has been studied but little if at all in conjunction with the intellectual history of the Middle Ages. We have surveyed the period from the late tenth, eleventh, and early twelfth centuries from the perspective of the eight chronological corrections to Dionysius's Incarnation era. In the process we have made a contribution not only to the study of medieval chronology, but also to the study of the medieval author as individual. Brigitte Englisch has posed similar questions for the period immediately preceding ours (400–900), but without providing satisfactory answers.³³ In this context Jennifer Moreton has done some preparatory but not yet conclusive work for the twelfth and thirteenth centuries.³⁴ Most studies date the 'discovery' of the individual to this same period (1150–1250). Aaron

³³ Brigitte Englisch, *Die Artes liberales im frühen Mittelalter (5.–9. Jh.): Das Quadrivium und der Komputus als Indikatoren für Kontinuität und Erneuerung der exakten Wissenschaften zwischen Antike und Mittelalter*, Sudhoffs Archiv. Beihefte, 33 (Stuttgart, 1994), pp. 280–469. For a critical discussion, see Bruce Eastwood, 'Review of *Die Artes liberales im frühen Mittelalter (5.–9. Jh.): Das Quadrivium und der Komputus als Indikatoren für Kontinuität und Erneuerung der exakten Wissenschaften zwischen Antike und Mittelalter* by B. Englisch', *Isis*, 86 (1995), 315–16.

³⁴ Moreton, 'Computus of "Constabularius"', p. 62: 'Computus seems to have been at the "cutting edge" of the new science of the later middle ages [. . .]. To solve the age-old problems of the ecclesiastical calendar, computists turned to the new science.'

Gurevich rightly observes, however, that this conclusion is based mainly on, and determined by, the fact that most of the source material comes from this period.³⁵

At the end of this study the final question is whether or not these authors won their duel with the past. At first glance the answer would seem to be that they did not, in as much as none of the corrections studied here were put into practice with any enduring success. The defeat on the practical level is compensated for, however, by the fact that the authors of these corrections constitute important links in the medieval growth towards intellectual autonomy.

³⁵ Gurevich and Judelson, *Origins of European Individualism*, pp. 249–50: ‘Are we entitled to speak of the “discovery” of the individual and individuality in any specific period of the Middle Ages? It does indeed emerge that attention became more closely focused on this phenomenon in the twelfth and thirteenth centuries, although it is still possible that this conclusion forces itself upon the historian because of the state of the source material: the earlier period is not so rich in written sources and, from their scattered testimony, it is difficult to piece together a general picture.’

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